SEX, DRUGS, AND THE KIDS AT FORT BRAGG

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

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The Family Practice Residency provided an abstinence-based curriculum program to the post junior high school students. This study investigated the prevalence of high-risk behaviors in this population for improving future programs. The literature provided limited information on high-risk behaviors within such a young group. A majority of studies focused on inner-city populations with older students and higher rates of activity. Only one study looked at military youth, but it did not address sexuality. An anonymous survey provided the database. Tobacco usage occurred with one-fourth of the students. Alcohol usage was prevalent in one-third. Drug and smokeless tobacco usage was 8-10% for each. One-third reported sexual intercourse. Differences between gender and grade were statistically significant. The students reported discomfort discussing these topics with school advisors, teachers, and the nurse, but more comfort with parents and physicians. The program had a positive impact on one-third of the students. An abstinence-based curriculum was not an appropriate method for such a significantly active group. A more comprehensive approach combining abstinence and risk reduction would be better. More research would help to identify what factors contributed to high-risk behaviors, along with studying different populations and posts to understand the level of activity within this group.

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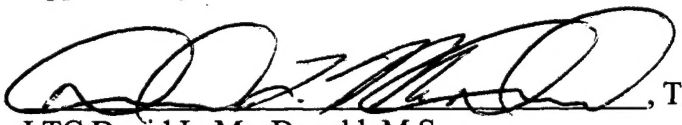

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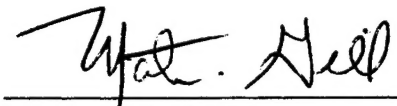

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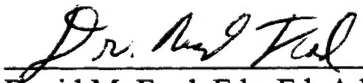

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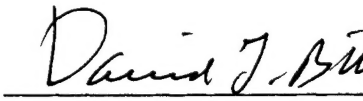

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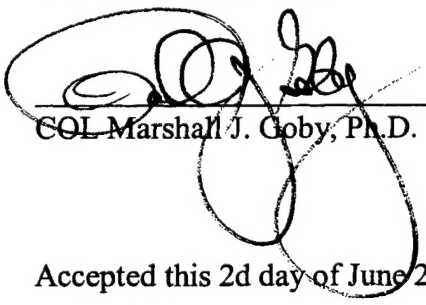

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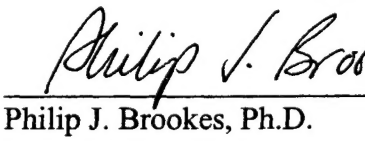

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ABSTRACT

SEX, DRUGS, AND THE KIDS AT FORT BRAGG by MAJ Stephen A. Bernstein, USA, 118 pages.

The Family Practice Residency provided an abstinence-based curriculum program to the post junior high school students. This study investigated the prevalence of high-risk behaviors in this population for improving future programs.

The literature provided limited information on high-risk behaviors within such a young group. A majority of studies focused on inner-city populations with older students and higher rates of activity. Only one study looked at military youth, but it did not address sexuality.

An anonymous survey provided the database. Tobacco usage occurred with one-fourth of the students. Alcohol usage was prevalent in one-third. Drug and smokeless tobacco usage was 8-10% for each. One-third reported sexual intercourse. Differences between gender and grade were statistically significant. The students reported discomfort discussing these topics with school advisors, teachers, and the nurse, but more comfort with parents and physicians. The program had a positive impact on one-third of the students.

An abstinence-based curriculum was not an appropriate method for such a significantly active group. A more comprehensive approach combining abstinence and risk reduction would be better. More research would help to identify what factors contributed to high-risk behaviors, along with studying different populations and posts to understand the level of activity within this group.

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Finally, I must thank my spouse and children for giving me the time, freedom, and support to finally sit down and do this project.

TABLE OF CONTENTS

ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
CDC	Centers for Disease Control
HIV	Human Immunodeficiency Virus
PID	Pelvic Inflammatory Disease
SIDS	Sudden Infant Death Syndrome
STDs	Sexually Transmitted Diseases

TABLES

CHAPTER 1

INTRODUCTION

Introduction

Most residents in family medicine training programs work with their community to provide health prevention and promotion. The Womack Army Medical Center (Fort Bragg, North Carolina) Family Practice Residency, for which this author was one of the residents, did one such program. It provided an abstinence-based teaching curriculum for the on-post junior high school and its students. This had been an ongoing cooperative effort for the past several years between the school and the Residency. The program's goal was simple--to provide the junior high school students with an independent, medical-based, and nonschool-sponsored source of information on the high-risk behaviors along with techniques on how to abstain from such behaviors. Once a month, during the second half of the school year, the residents and staff family physicians provided to each homeroom class an hour-long presentation on alcohol, tobacco use, and drugs; teenage sex; teenage pregnancy; promoting a healthier lifestyle; and a summary question-answer session.

Most everyone praised the program as there were very few dissenters or critics. The school appreciated the doctors coming to the school and spending an hour a month with the students to educate them and promote a healthier life. For the school, it was more than just somebody else teaching their "sex ed" or health education classes. The students looked forward to the classes with each coming year, as demonstrated by their level of participation and feedback. The content had a more refreshing, current,

nonparochial approach and was definitely a departure from the norm. Although program participation was voluntary, parents overwhelmingly supported it. On average, approximately five students (or less than 1 percent), out of a population of over 600 students were parentally withdrawn from the course during the school year. The parents, teachers, and the parent-teacher association, all gave their high praise and appreciation.

The Residency enjoyed bringing this program to the students, both for personal and professional growth. The Residency was subsequently tasked with the responsibility of providing the medical care for all pregnant teenagers and their families that were eligible for military medical care within the region. It provided an opportunity to practice some "real" primary preventive care to one group of adolescents considered at risk. It established a rapport with these students and provided a valuable conduit for accessing medical care or advice. One of the major barriers in caring for adolescents is their resistance, hesitancy, or lack of awareness in how to get help. So, for a large majority of the school, the program appeared to be a real win-win situation.

Background History on the Program at Fort Bragg

The residency director began the abstinence curriculum program at Fort Bragg. It had been presented and was ongoing since the early 1990s at the on-post junior high school. The program had also been used but was subsequently discontinued at two of the off-post private schools. The program's timing came at a point when the country was struggling with continuing climbing rates of teen pregnancy, substance abuse, and self-destructive behaviors. Around the country, as well as around the local area of Fort

Bragg, curbing these rates and their consequences became a highly visible public health effort. The program's format, style, and content were consistent with a conservative pedagogy, in part matching the program author's beliefs and teachings as well as community views. There was an effort to avoid sounding moralistic or "preachy," believing that would lose the students' attention, as well as make no overt religious or parochial underpinnings. More medically oriented information was presented which used techniques of behavior modification and risk reduction in addition to education. Likewise, promoting abstinence over teaching how to have safer risky behavior provided a more mainstream, unambiguous, and clear message of healthy living.

This author's interest in this topic came from initially working in the residency program providing care for teen pregnancies, teaching the curriculum to the students at the junior high school, and listening to teenagers' and their parents' stories. While participating in the presentations, it was noticed that the department still provided medical care for a large number of teenage pregnancies. This, along with substance abuse and violent crime, still seemed endemic to the community and region in the southeastern United States (U.S.) despite the public health community's efforts throughout. These observations and the stories made me wonder if the format of the program and the content was having a positive impact on their behaviors. Further, it made me wonder about differences between the military and civilian community.

Research Questions

Discussing these observations and stories with the residency director, also the program author, in relation to the program taught at the junior high raised the question of

whether we really knew the students. More poignantly, did we know what their level of activity for risky behaviors was already? If the students were already highly active in risky behaviors, was the abstinence-only educational program the appropriate approach for the junior high students at this post? While well received and quite popular, was the abstinence-only program providing any value or effect, or could something better be designed? Were there any demographic variables or factors that might help to identify teens at a higher risk compared to the group as a whole? Answering these questions had been attempted previously with small data collections, comparing private religious junior high school groups to the students attending the on- post school, but in reality, the information to answer these questions was lacking.

Attempting to answer these questions meant beginning with the most basic question--who were the students at junior high--prior to trying to ascertain if the program was effective or not. The program was assumed to be oriented appropriately to its audience, but how did anyone know? If the program was not, then making conclusions about its effectiveness could not adequately answered. Thus, the first need was to show that the program addressed these students' current level of activity about high-risk behaviors. If the group was already active in particular activities, then teaching an abstinence-only approach might not be the best method to reduce the occurrence and consequences of these behaviors. Likewise, if the group were minimally active, then perhaps an abstinence-only curriculum alone would be adequate.

To answer these questions meant first gaining familiarity with the target audience. The assumption, or hypothesis, made was that a better understanding of the students

would facilitate composing a better program. If the population was more active than given credit, perhaps a combination program promoting abstinence but complemented with risk reduction discussions might serve them better. A better understanding would allow more depth into topics and areas that previously had been not appreciated as much. Conversely, it also would permit reduction of discussion and time spent on areas that were not an issue or were over-emphasized. The main problem in determining effectiveness stemmed from assumptions made about the group of students without any empirical data to support the program's direction and focus.

The literature had some data on subsegments of the civilian adolescent population, but a preponderance of the articles discussed older age groups and adolescents from the lower socioeconomic level. This group was different--these were junior high school-age adolescents from military families. At least one parent was an active duty servicemember, with pay and benefits. Those below the set income limits were eligible for additional subsistence. All had free medical care with the military hospital on-post. All lived on-post in housing with free utilities and basic appliances. All had free education at the school. Thus, to start to answer some of these questions and develop these ideas, a survey was designed for the school's students.

Limitations, Delimitations, and Significance

This proposed thesis is limited to reporting the demographic information from the survey tool regarding only those students attending Fort Bragg's junior high school. It will not reveal information about military adolescents at other installations or attending other schools. The survey data will not answer whether the abstinence-only program is

effective or the best approach towards promoting a healthy lifestyle for all adolescents. I may derive some conclusions from the data along with the known literature as to whether the abstinence-only program format is the most effective design. However, I am limited to addressing the program in its context with the Fort Bragg junior high school and its students.

Delimitations include not researching or showing the best method to curb the high-risk behaviors in our teens. The survey did not address income levels, rank, religion, or number of siblings. The survey did not include questions regarding violent crime, gang activity, use of inhalants, or use of designer drugs. The research did not follow the cohort long enough to determine whether our program had a long-lasting impact. The survey did not have a control group to draw comparisons and conclusions and did not include off-post students. Further, this thesis will not try to answer why the military population is similar or different to civilian cohorts and what problems might be unique to a military family and its lifestyle. Although these are valid topics, the primary focus of this thesis is to provide baseline demographic information about the students at the Fort Bragg military junior high school.

This study is significant to educators, physicians, family life counselors, parents, and the military at large. The consequences of these behaviors can often be life changing, having a long-term impact not only for the individual teen, but also for the family and community at large. For educators the battle is to provide a safe, fundamentally sound learning environment for the students. Keeping teenage parents in school, off welfare and out of minimum wage, dead-end jobs to try to build a future is a

societal challenge. A generation ago, it was unknown for schools to provide daycare for teen parents, but now it is the dilemma. For physicians and counselors the consequences of risky behaviors leaves a whole dynamic of problems from medical, mental, physical, to consequential.

Parents often feel stress, loss, bewilderment, anger, doubt, guilt, and ultimately acceptance (if possible at all) of their teens' behavior. That affects their physical, emotional, and financial well being. For commanders and community leaders, what goes on within the family may affect his or her soldiers' individual performance, focus, and attention. This may place individuals or even the unit at increased risk for accidents or injury or may affect the unit and its mission. The military community traditionally has a high level of involvement in its schools. Many are willing to work towards the ultimate goal of better educating all on this area and reducing these behaviors. Having the knowledge base of the prevalence of these behaviors will provide a better starting point from which to work. From this, the military community at large will be able to promote in teenagers a healthier lifestyle, reduce some of the stresses within families and within the military through earlier intervention, and reduce the problems that may be caused by these behaviors.

CHAPTER 2

LITERATURE REVIEW

Introduction and the Present Day

Adolescent health and adolescent behavior are linked. What occurs during these formative transitioning years from childhood to young adulthood may significantly affect their individual future. In a large scale, these actions and their consequences may shape the future generations and the trends that society incurs. According to Reiss, the epidemic in this country of increasing teen high-risk behaviors and their consequences is evident--outnumbering our Western civilization counterparts in all areas. Teen pregnancy, teen parenting, human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), sexually transmitted diseases (STDs), drug use and abuse, alcoholism, tobacco use and addiction, and violence have made their mark on society. From the late 1980s to the present, the public health services have been pushing to reverse these trends and reduce the adverse impact these problems. Despite small improvements in some parts of the cities, there is still much more to be done. Many teenagers do not have a loving family structure that is able to rescue them from their predicament and help reorient them to a better future. So, the struggle in medicine, in education, in families, in society, in religious circles, and in government is to devise a way to curb these behaviors and their consequences.[1]

As noted by Reiss, after teenage pregnancies, abortions, and births rose in this country during the 1980s to the highest levels of any Western country, numerous ideas and educational interventions had been attempted, but none had a great deal of success.

Numerous organizations, from national, state, local, and private sectors tried to reverse this rise or at least stabilize the problem through information, risk reduction-based education to abstinence-based programs. More programs arose to further provide information and education as a wave of drugs, crime, gangs, and school violence rose, and HIV/AIDS made its mark into our society. Health and sexual education curricula entered the schools to provide the information that many teens "seemed to have missed from home." Debate ensued on what to teach--abstinence versus information on safer sexuality, how much information to give, whether to have clinics in the schools, access to condoms, and birth control, and so on.[2]

Despite the attention given to the problem of high-risk behaviors and their consequences in the adolescent population, not much critical, definitive research existed to provide solutions. Weekly newspapers, magazines, television or radio reported stories dealing with the problems of teenage sex, pregnancy, substance use, violence, and troubled behavior. Articles had been written in the medical literature, addressing the risk factor identification and proposed solutions for small groups of the population. A large part of them focused on the inner city youth and subsegments of the country where rates, problems, and consequences were higher and created a financial and societal burden. Research articles had looked at the dynamics and attitudes of incoming military recruits, who are 17, 18, or older. The majority of these articles dealt with trying to solve the problem in the civilian side. Few had examined the problem in junior high school age students. Within the military dependent population, only one report had addressed this group in the context of high-risk behaviors and their ramifications on the family and its subculture of society.

Literature on Military Adolescent Population

The military reported more than 350,000 military dependent youths between 11 and 17 years of age, but little had been reported about this group. How they compared to a civilian group had been even less known. In a 1997 study published by the Military Family Institute, the researchers found that these military adolescents were doing as well as or better than their civilian peer group in most instances with regards to high-risk behaviors, maturation, and adjustment with growing up in America. Part of this was explained as due to the earlier maturation that occurs with the frequent changes in location and schools. Part might have been due to heavier involvement of the military in the schools and of the military community with students' extracurricular activities. Still, there were youths at risk. Although their rates appeared lower, the risks still existed.[3]

This research project had 6,382 military adolescents from around the world between 10 and18 years old respond to a questionnaire. One major immediate drawback was the response rate for the survey was only 19.5%, with a range between a low of 7.1% to a high of 31.5% from the places surveyed. The data also were skewed with an overrepresentation of Air Force adolescents, and the inclusion of all of the overseas adolescents in the second phase of the survey. Stateside youth were randomly selected for the second part to meet the target size. Nevertheless, without any other data readily available for this population, this study examined the topics of general health, smoking, mental health, and alcohol and drug use, but not sexuality and pregnancy.[4]

Findings from this study were intriguing. Overall general physical health appeared better than that for their civilian counterparts when examining chronic-type illnesses, but when factoring in other facets of health (vision, hearing, learning problems,

etc.), no significant difference existed.[5] No real differences existed between the military group and the civilian group in regards to mental health issues. Some trends seemed to show a slight favoring of better mental health in the military group, but the sample size was too small to show statistical significance.[6] Concerning the various antisocial behaviors, the survey found more prevalence in overseas living youths of enlisted members, in the older teens, and Blacks. The survey also found a slight increase in the incidence of vandalism, shoplifting and fighting, but less likely prevalence for more severe physical harm.[7]

Smoking and smokeless tobacco use appeared to be less prevalent overall compared to a civilian cohort. This usage was associated with older teens of both genders equally and to teens that were from senior enlisted members, overseas, and part of Navy and Marine Corps families. For the 10-12 year old group, 19.8% had reported starting to smoke, compared with 42.1% for the 13-14 group, and 55.7% for the 15-18 year old group. By race, 35.2% of White adolescents reported cigarette use compared with 30.1% of Black adolescents. With chewing tobacco, the rates of usage were 2.8% for the 10-12 group and 6.6% for the 13-14 group; 7.2% of the Whites and 3.6% of the Blacks; and 11.4% of the males and 3% of the females.[8]

For alcohol and drug use, the data presented for the military group showed no differences with regards to gender or race, unlike the civilian group where White males were more likely to use alcohol and drugs. Both populations showed the typical increasing incidence with age. Overseas youth were more likely to use alcohol than stateside youth (62.9% compared to 53.5%). Overseas youth were also more likely to use inhalants than stateside youth (13.9% compared to 7.9%), but the reverse was true for

reported marijuana use (15.1% compared to 21.7%). By grade, the rate of usage for 8th, 10th, and 12th graders for alcohol was 26.9%, 48.8%, and 50.5%; for inhalants was 9.3%, 7.9%, and 5.3%; and for marijuana was 11.3%, 21.9%, and 25.0%, respectively.[9]

Medical Literature on the Civilian Adolescent Population--Nature of the Problem

A majority of the medical literature written on adolescents had focused on high school age populations and higher risk groups such as those from the inner-city areas or from lower socioeconomic status. The non-medical media had covered a wider gambit of groups, but still had stayed mainly in the high school age arena. While a number of articles had been written on teenage sexuality and pregnancy, others had also been written regarding substance use. A third area involved the various intervention programs and their effects, outcomes, strengths, and weaknesses.

Tobacco

For tobacco companies, adolescents had been their target audience. The average age of starting smoking in America had decreased over the past two decades from sixteen to twelve. The sooner the person was hooked to nicotine, the longer and more often, that person uses the product. By graduation from high school, 28% of the youth would be regular smokers, and for those that dropped out of school, this figure increased to over 70%. Even of the adolescents who considered themselves "social" smokers, 66% of them would become regular users within two to three years.[10] Factors that cause teens to turn to smoking had been difficult to ascertain, but some observations of smoking as it relates to other high-risk activities had been noted.

Correlation between tobacco usage and school performance, drug use, and alcohol were evident. As a group, 42% of nonsmokers maintained an A-B average while only 21% of the smoking group did so. What led teens towards starting to smoke rather than tobacco itself was felt to be the cause of this observation. Alcohol and marijuana usage likewise was significantly higher in the smoking group. Overall, 82% of smoking teens compared with 29% of nonsmoking teens reported becoming intoxicated. From the smoking group, 32% used alcohol one to three times a week, and 6% drank daily. With marijuana, 67% of smokers had used it, with 20% using it daily, compared to nonsmokers whose numbers were 21% and 2%, respectively.[11]

One survey reported interesting demographics regarding teen smoking. By gender, smokers were 61% male and 39% female. Of the reported smokers, 60% began by the age of 13 years old, with almost 90% of the being regular users by 15. Smokers tended to associate more with fellow smokers and/or family members. Children of smoking parents were twice as likely to start smoking compared with nonsmoking parents, but the highest associated risk for smoking was having a best friend who also smoked. Parents disapproved in only a quarter of these youths with less than 10% hiding it from their parents. The hardest part of the tobacco addiction was that 72% tried to quit at least once and failed, with more than half trying at least three times. The overwhelming reason cited was concern for their health. These findings paralleled the Surgeon General's report on preventing tobacco use in the adolescent population as well as several other well-documented studies.[12]

Information provided from the U.S. Preventive Services Task Force reflected similar statistics, with 1994 data showing 19% of high school seniors being regular

smokers, with Blacks representing only 4% of that group. 25% of 12-13 year-olds reported having tried cigarettes with 4% already regular users.[13] Smokeless tobacco usage was 11.4% in high school students and 20% in male seniors, with usage beginning as early as age five.[14] Despite all of the school-based anti-tobacco programs that had begun, these programs only showed a short-term benefit of two to four years in the reduction of incidence and prevalence of tobacco use. Long-term benefits had not been found without reinforcing these programs. The best programs incorporated teaching skills for abstinence in collaboration with discussing the long- and short-term effects of use.[15] While physician counseling and intervention alone were demonstrated to be powerful tools with adult smokers, it had not been found to be effective with children and adolescents.[16] It had been extrapolated that physician support of the anti-tobacco programs would benefit the long-term goals of reducing tobacco use in adolescents.[17]

Alcohol Usage

Alcohol use by adolescents and young adults, while declining some in the 1990s, had remained a problem. Alcohol and other drug intoxication had been implicated in half of the deaths from accidental injuries, the leading cause of death for this group, and played a significant role in adolescent homicides and suicides.[18] Driving under the influence had been a significant problem for teens, occurring twice as often as young adults.[19] A 1990 survey of high school seniors found White youths reported greater use of alcohol within the thirty days prior to the survey than Black youths, 62.2% to 32.9%, and more of a problem with males than females. Further, teen usage was related to parent education level, with higher levels of education associated with more use.[20] In a survey

done in 1993 of 12 to 17 year olds, 18% had reported using alcohol in the past 30 days and 35% in the past year. With a separate survey of 12th graders, 45% of men and 33% of women reported binge drinking (more than five drinks at one period) in the previous month. Binge drinking itself had been associated with difficulty in schoolwork, trouble with police, and unplanned or unsafe sexual activity.[21] School-based programs had been found to have inconsistent, small, and short-term effects only. Programs that focused on developing skills to resist use, rather than on teaching of facts, had been found more effective. The effect of strict abstinent messages had not been validated.[22]

Illegal Drug Usage

Despite declining trends, substance use remained a problem for the adolescent population. The complications of illicit drugs, including the new designer drugs, had been correlated with poor school performance, increased accidents, unsafe sex, and further use and abuse of drugs. Inhalant abuse is prominent in the younger adolescents with the risks of death or asphyxiation causing brain damage from continued use. Anabolic steroid use in teen athletes had been noted with the risks being psychiatric, cardiovascular, hormonal, reproductive, and liver problems.[23] Part of the 1990 survey of high school seniors that discussed alcohol use also found similar correlation with drug use. Again, White youths reported greater use of marijuana and cocaine within the 30 days before the survey than Black youths, 15.6% and 1.8% versus 5.2% and 0.5%, with more of a problem in males than females. Marijuana usage like alcohol was found to correlate with higher parental education levels.[24] A study of seniors in 1994 showed that 22% had used illegal drugs in the previous month, with marijuana being the most

common at 19%, followed by stimulants at 4%, inhalants at 3%, hallucinogens at 3%, cocaine at 1.5%, and heroin at 0.3%.[25] While treatment programs worked well, primary preventive programs had been less well studied for long-term impacts. One study showed no effect on marijuana use in high school seniors while reducing alcohol and tobacco use, whereas a subgroup having more teaching had almost twice the reduction in regular marijuana use compared with their peer group.[26] Drug use had been implicated with adolescent violent death as well as poor grades, social withdrawal, and family dysfunction.[27]

Teen Sex and Pregnancy

Teenage sexuality and pregnancy had comprised a large percentage of the topics covered in the U.S. literature on adolescent health and behaviors, providing a wide range of statistics and information. National statistics from 1990 reported that for teenage women 26% of 15 to 17 age group and 34% for the 18 to 19 age group were sexually experienced.[28] A separate study done in the same year that looked at a predominantly minority, inner-city area in Connecticut found significantly higher results. For females, 13.9% had their first intercourse by age 13, 38.9% by age 14, 63.8% by age 15, 80% by age 16, and 94.4% by age 17. For males, 30% had their first intercourse by age 11, 70% by age 15, 90% by age 17, and 100% by age 19.[29]

The 1993 survey data from the U.S. Preventive Services Task Force showed an increase in the national rates over three years, with 32% and 44% of ninth grade girls and boys, respectively, and 67% of seniors having had intercourse.[30] This included 33% of high school students,[31] and over 50% of the seniors,[32] disclosing that within the past three

months that they had intercourse and that 19% had had more than four partners.[33] As an aggregate group, sexually experienced high school students had maintained a prevalence level of between 53.0% to 54.2%.[34] Approximately 29% of teens, and over 50% of teens under 17, had reported not using any contraception with their first episode of sex.[35] Although condom use had been becoming higher overall with teens, with the their last episode of intercourse, condoms were still used by only 46.2% in 1991,[36] 50% in 1993,[37] and 54.4% in 1995.[38] Further, regular usage had been decreasing as teens got older.[39]

The rate for unwed teenage pregnancy in U.S. had increased by almost 90% from 1972 to 1988. Births increased 90% over the 20 years from 1970 to 1990. This tripled the birth rate from 1950.[40] In 1990, the annual rate for pregnancy in all 15 to 19 year old American women was 10%, with up to 95% of these unintended.[41] By 1993, the annual pregnancy rate doubled that to 20% for the sexually active teenage women group, with 80% of these unintended.[42] The rates for non-White teens were almost double that of the White teens, with those with the least family, educational, and financial support being the group most likely to become pregnant.[43] Teen pregnancies number over 1 million annually,[44] accounting for over 500,000 births each year. With 1992 data, 40% of the teen births were to those under age 17, with teens under 15 accounting for over 12,000 of them, and with the prevalence rate for teen pregnancy and birth being 61/1000 teenage women.[45]

The 1995 and preliminary 1996 data had shown improvements in some areas, but not in others. The teen birth rate slowly declined from its peak in 1991 of 62.1 births per 1,000 females between age 15 to 19, to 56.8 for 1995, and to 54.7 for 1996. This included births to the under 15 age group dropping from 12,242 in 1995 to 11,242 in

1996. Still, over 500,000 births were from the teenage group, with 76% of these births to unwed women. The Hispanic teenage birth rate remained unchanged in the 1990s at 107 births per 1,000 between age 15 to 19, but the rate did fall in Blacks to 99 per 1000 and in Whites to 39 per 1,000. Further noted was that 22% of all of the teen births were repeat births to teen mothers, only slightly down from the highest rate of 25% in the early 1990s.[46]

The risk factors and effect of teenage pregnancy and births had been readily shown. One-half of the teen pregnancies occurred due to contraceptive failure. Condom breakage, missed medications, adverse reactions with other medications, and lack of appropriate use were some examples of contraceptive failures. Approximately one-half of the unintended pregnancies also ended with elective terminations, with rates in the U.S. still higher than in most Western countries.[47] Seventy percent of teenage pregnancies were conceived with men over age 20.[48] Up to eighty percent of teen mothers had been found more likely to drop out of school. The same percentage do not maintain a marriage or relationship with the biological father,[49] and half would be on welfare within a year of giving birth,[50] at a cost of over $120 billion annually.[51] Teen pregnancies carried higher risks for pregnancy-related medical problems to include nutritional deficiencies and inadequate prenatal care.[52] Infants born to young teen mothers had been shown to be at greater risk for low birth weight, neonatal mortality, sudden infant death syndrome (SIDS), neglect, abuse, and behavioral and educational problems in school.[53]

The effect of early sexual activity had also been seen readily in the aspects of venereal diseases. Two-thirds of all of the sexually transmitted diseases (STDs) occurred

in the under 25-year-old group and were substantially higher in the Black and Hispanic young populations especially.[54] In women, chlamydia, which undiagnosed or untreated had already been implicated as one of the causes of infertility in women, was found in over one-third of teen pregnancies. Syphilis rates have doubled for teenage women from 1985 to 1991.[55] Shown to cause genital warts, abnormal Pap smears, and if left untreated, cervical cancer,[56] the human papilloma virus' attack rates were higher and more severe with earlier sexually active teens. Pelvic inflammatory disease (PID) rates were also doubled for those who begin intercourse before 16, when compared with those over 18. Future complications of PID in the future would include higher risks of ectopic pregnancies, infertility, and chronic pelvic pain.[57]

Studies had found certain factors and facets of living in America reduced or contributed to the problem of early teen sexual activity rates. Factors associated with reduction in early sexuality included sex education at home, the presence of the father in the home, and parental supervision of dating. A consistent moderate level of discipline, high performance and motivation in school, and plans for further education were shown reductive. Religion in the home, high self-esteem, self-motivation, being prepubescent, and being of Caucasian or Hispanic race had been shown reductive. While some factors might be modifiable, many of these were interwoven with larger, complex societal factors. Most of these still began at home with the environment and core values.[58]

Numerous factors, some being the opposite of the above noted factors, had been attributed to early sexuality. These factors included parental approval of sexuality, the absence of the mother-daughter bond, and a disrupted family structure to include single-parent homes. A mother or sister being pregnant as a teen, having home discipline that

was too strict or too lax, allowing early dating, and media influence were more factors. Friends who were also sexually active, being active in other high-risk behaviors (such as tobacco, alcohol, and drug use), and being influenced by others rather than internally motivated were still more factors. Low socioeconomic status and poverty, being male, and being of African-American race were another set of factors.[59] A review by the group, Child Trends Inc., found four of these factors had a particular relationship with teen pregnancy. Applying the factors of early school failure, early behavior problems, family dysfunction, and poverty to an eighth grade teen female showed that the likelihood she would give birth before twenty. It found the relationship was 11% if none, 29% if one, 35% if two, and 50% if three or four of the factors were present.[60]

Despite being physically mature for sexual behavior, the emotional and intellectual intimacy involved with sex had been found immature for many in the adolescent age group. Having this disconnect between the physical, emotional, and intellectual maturity made this group at risk for the problems seen and appeared to set the stage for the problems and consequences of their actions. With the multitude of factors and pressures weighing on them, trying to fit in, trying to increase self-worth, and trying to gain closeness, the immediacy of physical gratification would fill the void only temporarily. Afterwards, the feelings would return. Complicating factors in adolescence were the weakening of the family unit, the lessening of influences from traditional societal values, the increasing of media messages, and the increasing of pressure from their friends and peers.[61]

The inner city Connecticut study also highlighted the emotional immaturity and complexities of growing up, and concluded that peer pressure alone was not a factor.

Rather, the major factors seemed to be being sure of their decision, being in love, and not wanting to say "no" to their partner. As shown in the conflicting responses regarding those who wait versus those who are active, it found a large majority of the active teens were still too immature to fully comprehend the consequences and hazards of their actions in abstract terms. Initiation of intercourse was motivated by internal desires and as a subconscious way to raise their self-esteem, but afterwards would come guilt, self-deprecating feelings, and lowered self-esteem, which would go back to feed the cycle again.[62]

Selecting an even younger population, a study of Chicago public junior high school students considered the variables associated with loss of virginity. It used a one-time anonymous mass survey with an 84% completion rate. Non-English speaking, absent, and special education students accounted for the remainder. The population for this survey was 40% Hispanic, 25% Caucasian, 25% Black, and 10% other. Over one-half of the Caucasians and Hispanics had intact households with the natural parents; only one-fourth of the Black families had intact households. Pubertal status was defined as semen release for males and menarche for females and was limited to the eighth graders surveyed.

This study found that gender, ethnicity, pubertal status, suicidal ideation, and number of siblings influenced the onset of sexual activity. Males were more sexually active than the females, with ethnicity also showing statistical significance. For male eighth graders, 42% of the Caucasians were experienced, with 40% for Hispanic males, and 82% for Black males. For female eighth graders, 13% of the Caucasians were experienced, with 10% for Hispanic females, and 32% for Black females. Overall, 25%

of the eight graders here were already sexually experienced. Over 50% reported regular condom use, with only 5% of the females using oral contraceptives. When redoing the regression analysis using ethnicity as the last variable, grade point average and housing density fell out of statistical significance, possibly indicating these associations may be related to ethnic social differences and not independent factors on their own.

A surprise in this study found a 5.8% rate of suicide attempt in the sexually active group. Church attendance, self-esteem, religious affiliation, grade point average, housing status, marital status of natural parents, knowledge of sexual education, school attendance, and age were not factors in this group of teens. The lack of an intact household might have been a factor, but it was not tested independently with the survey. The teaching of sex education had little to no effect, which was consistent with other studies done. Ethnicity was such a powerful factor linked to a number of other factors, that many of these other factors reported in other studies as significant for early intercourse might, in fact, be related to the societal environment and not truly independent. The cultural influences around these students might be the predominant untested factor that explains these other factors. The conclusion in this study was for further research into these other variables while working towards improving the overall quality of education rather than focusing on efforts solely to affect teen pregnancy and sexuality rates.[63]

Prevention and Intervention Programs with Teen Sex and Pregnancy

Along with the "explosion" of teen sexuality and pregnancies, HIV and AIDS education in the middle 1980s further increased awareness for public health education.

However, even in 1995, only 5% of adolescents were receiving comprehensive health education programs.[64] The goal of early programs was the promotion of safer sex to curb the spread of disease along with increased use of contraceptives to prevent pregnancies. Public funds and policies pushed towards this direction of intervention. However, these messages to the adolescent population unnerved adults and parents, fearing that teaching students how to have sex safer would only promote more activity. Consequently, the abstinence movement grew as an alternative to a more pragmatic approach towards the problems of increasingly risky behaviors. It had become the prominent methodology used.

In 1997, the federal government set aside money for a five-year project in preventing kids from engaging in premarital sex. In 48 states, numerous schools and groups had accepted funding already. Five of these states had directed further that pure abstinence-only programs would be taught in their school. The only salient requirement was to teach the "harmful psychological and physical effects" of early intercourse. If contraceptives were mentioned at all, the funding required them to be skewed as ineffective and uncertain for prevention, contrary to the message in safe sex promotions. While the intent was laudable, the methods used left some concerns.[65]

So far, the studies of the various prevention programs had shown interesting trends. Which methodology was better remained a controversy, to include which approaches had merit. Safer-sex studies had shown a positive effect of improving condom usage,[66] and the 17% drop in teen pregnancies so far this decade appeared more due to improved compliance with the various methods of birth control.[67] The CDC confirmed this decline in teenage pregnancy, explaining that it was due to the increased

use of contraceptive methods in a stable population of sexually active teenagers. However, the CDC warned that making further declines would require more complex solutions to the multitude of factors, including strengthening teenagers' self-esteem and helping them better plan for the future.[68]

Conversely, evidence supporting the success of abstinence teaching had been minimal. Two studies where abstinence had a positive effect were not controlled or randomized, and the others did not show reduction of sexual behavior.[69] If anything, no reliable study could show that abstinence teaching had anything beyond a short-term effect[70] or even caused any delay in the engagement of sexual intercourse.[71] One large study showed the lack of effect of abstinence-only programs in the long term, with at best minimal differences at the 17-month follow-up between the test group and the control group.[72] Based on the results of these studies, which directly conflict with the politics of the current public health policies promoting abstinence-only teaching, funding for these programs in the recent Welfare Reform Act should not achieve their goals.[73]

One abstinence-only program had been initiated at La Vega High School in McLennan County, Texas. Their program began after years of high rates for teenage pregnancy. Laden by controversy because of the state's sponsorship and funding, the goal was to provide a clear, unambiguous message to reduce the rates of teenage pregnancies, lower sexually transmitted disease rates, and promote healthier adults. Part of the program downplayed condoms and contraception as having too high a failure rate or not being able to safeguarding against all of the risks and thus, being unreliable.[74] In fact, when handled and used properly, condoms had been shown to work quite well.[75] One major flaw in this program was the gross misrepresentation of the medical facts,

such as presenting questionable statistics as fact or misrepresenting medical data to support the program. Opponents worried that the program bordered on creating phobic teens as well as preventing or misleading teenagers from learning the facts and knowledge they need. For the 200 students in their second year of the abstinence-only classes, 120 had already lost their virginity, and ten were pregnant.[76]

Some schools and states started to see the trends and declined the federal money to promote a more comprehensive program, providing instead a balanced course content that includes both abstinence and contraceptive information.[77] The programs that have proved effective so far contained abstinence teachings combined with information about contraception[78] without promoting early sex or increasing sexual intercourse.[79] This made sense--denying information should increase the risk on a multitude of levels.[80] Combining abstinence teaching with teaching safer sex to tackle the problem of high-risk teen behaviors in a public health model of primary, secondary, and tertiary preventive efforts seemed to make sense. Abstinence teaching would be the primary mode. Secondary prevention would focus on the cessation of sexual behavior to revert towards an abstinent lifestyle. Tertiary prevention would provide methods to minimize the risks and treat the consequences of continued high-risk behaviors. One major problem with this approach is that for teen sexuality, a majority of effort in the post-HIV era had been towards minimizing the consequences and risks, not towards cessation of the behavior. This contrasted with approaches towards other behaviors such as smoking, alcohol, and drug, and sent an ambivalent message.[81] A change in approach might be the key to improving success.[82]

A separate review of pregnancy prevention programs showed limited evidence that classroom-based sex education influenced behavior despite influencing attitudes and actions. Using abstinence as a primary prevention strategy showed promise in some studies in improving outcomes by translating the focus from teen pregnancies to premature teen sexuality. However, using the expansion of free condom distribution as a secondary prevention strategy, as promoted by then Surgeon General Elders, gave such a mixed message of "don't... but if you do." Likewise, the expansion of school-based health clinics for improving distribution of contraception, counseling, and abortion referral did not show a reduced incidence, but rather an increased rate. The downfall of the "fun without risks" secondary strategy was that it did the opposite--it resulted in an increase in STDs, pregnancies, abortions, and other adverse physical and emotional sequelae. Abstinence promotion greatly contradicted the theory that if teenagers are going to be sexually active, then they need to be prepared.[83]

Another separate study examined the question of using behavioral interventions of abstinence versus safer-sex teachings to reduce the risks of unprotected intercourse. This study examined a volunteer population of inner city, low income, and African-American youths in Philadelphia in the 6th and 7th grades. The average age was 11.8 years, 53.0% were female, and 26.8% lived with both of their parents. 25.2% already reported having had sexual intercourse, to include 15.4% having had intercourse in the last three months. The participants were randomized into a primarily abstinent group, a primarily safer-sex group, and a more general health improvement group as a control group, with little attrition from the groups during the study and follow-up phases.

The study showed that the effect of abstinence lasted about 3 months, but then waned. The abstinent group experienced less members beginning intercourse over the first 3 months after the program compared to the other groups, but then there were no further differences when examined at the six and 12-month follow-ups. The abstinent group also had a higher rate of sexual activity and unprotected intercourse at the six and 12-month follow-up than the safer-sex group, but both groups were well below the control group. Further, the safer sex group persisted in practicing safer sex and practicing at a lower level over the term. In this study, the safer-sex education group did not show an increase in sexual activity. For preventing the unwanted consequences of sexual activity, the safer-sex teaching did better and lasted longer.[84] This study's strength was that it more reflected reality and the observations of many in the field, and argued against the belief that teaching safer sex practices actually encourages more of that behavior.[85]

Another consideration with promoting healthier teenagers and reducing high-risk behaviors had been the role of professionals outside of the home and schools. Discussions between physicians and their adolescent patients might be an untapped resource as physicians might provide a valuable source of information, counsel, and care for these difficult topics. The U.S. Preventive Services Task Force as well as many of the professional organizations and specialty academies, as part of the overall goal of pushing prevention sooner, had recommended that physicians introduce these discussions.[86] This included using a combination of abstinence with information on promoting safe, responsible behaviors and including information about alcohol, tobacco, and drugs as well.[87] Compliance with this goal had been variable with a majority of providers being

comfortable with discussing tobacco use with teenagers, but less than half of providers ever taking a full sexual history from their teenage patients.

From a study on this approach using high school age teens, looking from a patient's perspective, an overwhelming majority, 80 to 90%, of adolescents expressed that they would find it helpful to discuss such topics. Of these teenagers, 68 to 75% trusted the confidentiality of physicians on the subject of sexual activity. Teenagers trust with confidentiality decreased when the issues warranted medical attention, like STDs and pregnancy. Only 44% felt comfortable when they did not know that the physician did not have to inform parents while 54% felt comfortable when they did know the state's laws regarding informing parents. A major barrier was the lack of an opportune moment to begin these discussions, since teens had little to no regular contact with their doctor. The underlying conclusion rested with physicians taking a more forthright approach and encouraging teens to get regular check-ups rather than seeing their doctor only when ill.[88] The Guidelines for Adolescent Preventive Services was designed and promoted in December 1993 by the American Medical Association and the Center for Disease Control as a methodology for physicians to better provide this level of care. [89]

In striving to improve the lives of teens, solving these problems would make sense. Factors had been found that correlate to increased risk for early sexual activity. By identifying these risks, primary care and family physicians can traverse the spectrum of prevention to provide the best care and advice for their patients and parents. While some of these risks might not be easy to fix, the core premise in tackling problems such as early sexuality still rested within the home and family unit. Physicians could affect the family unit merely by being cognizant of the number of factors that might lead toward

discussing this topic. Often the parent's lack of awareness or discomfort with approaching this topic led towards no intervention. Physicians and counselors could assist merely by broaching the topic and offering guidance to both parent and teenager jointly and to each individually.[90] Programs that improve self-respect and self-esteem by focusing on personal choice making, self-worth building, empowerment, ego-enhancing teaching, and abstinence programs were felt to make a positive impact. This highlighted the failings of negative forms of teaching and counseling in terms of where these methods fail.[91]

One South Carolina team did a focus group observational investigation using higher risk teens to make improvements with that state's educational intervention programs. Baseline data from the 1993 South Carolina Youth Risk Behavior Survey of high school students found that 72% of males and 59% of females had engaged in sexual intercourse, with 32% of males and 11% of females initiating activity prior to age 13. From this group, 37% of males and 19% of females had reported more than three partners. Further, 55% used a condom with their last intercourse, 16% of males and 8% of females used alcohol and/or drugs before their last act, and 4% reported contracting a sexually transmitted disease. The forty South Carolina adolescents used in the focus group had higher self-reported activity profiles than the South Carolina student population, which included all active teens initiating intercourse before age 13.

The group provided significant commentary and concerns regarding the current state of and attitude toward education regarding sexuality and HIV. Only one-half of this group considered themselves at risk for infection despite being active with a number of risky sexual behaviors. Further, despite their activities and knowledge levels, the group

showed reluctance for risk reduction or modification. School-based education efforts, mandated by state law, failed to meet the needs of the adolescent group. They were quite negative in their commentary, recommending modifying district policies to provide better teachers and instructional methods. Recommendations from this group for community policies reflected suggestions made previously by numerous scholars and organizations involved in improving adolescent health. These teens' feelings and insights reflected the overall problems of a changing society and provided insight to the state board for improving the quantity and quality of education to the students statewide.[92]

In early 1995, numerous professionals from a multitude of backgrounds and beliefs assembled with Ted Koppel for an ABC News Nightline Town Hall Meeting on the subject of "Teen Sex: What'll We Tell the Kids?" The focus was on trying to reduce the risks and level of teenage sexuality. Numerous factors were cited as being part of the problem. One included data that showed from whom teens learn about sex: parents, 30%; school, 10%; and their friends, 53%. While teens understood the basics and the biology, it was the emotional aspects of sexuality, to include responsibility and commitment, which presented the majority of problems. One of the prevailing messages from the broadcast was that from Dr. Jocelyn Elders, along with the other members--which parents should become involved with educating their children, beginning much earlier than high school.[93]

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CHAPTER 3

RESEARCH METHODOLOGY AND RESULTS

Research Design and Methodology

The database for this study came from of an anonymous survey to the student body of the Fort Bragg junior high school, which was comprised of the seventh, eighth, and ninth graders living on the post. The survey instrument consisted of questions on baseline demographics, prevalence of high-risk behaviors, and attitudes and feelings regarding these behaviors and the abstinence program taught at the school. Derived from recent articles written in the medical literature and from the prior surveys, it consisted of 72 questions, with seven of the questions split towards a male and female specific perspective on pregnancies and relationships. Residency faculty and school officials reviewed the survey before its use. The principal approved its use with passive consent as part of the overall participation in the abstinent program.

Using several computer program assessments, the cognitive difficulty of the survey tool was scored at the seventh grade reading and comprehension level. A volunteer group of five students, ranging from sixth to eighth grade, validated the survey for clarity and understanding, and completed it in a time period of eight to ten minutes. After it was used for the 1995 assessment, the survey was slightly altered to simplify the structure of questions involving those split for the male and female perspective. Copies of the survey instrument are in appendixes A and B.

The survey was arranged in sections to gather specific information before considering subjects that are more abstract. The first section had nine questions to

establish a baseline set of demographic--age, grade, gender, school performance, ethnicity, home structure, future, and whether the parents were themselves teen parents. The next question asked for the classes of the program students attended. Then the section turned towards self-reporting the prevalence for high-risk behaviors and activities. Following this were questions on whether one of the parents or guardians had discussed the topics and whether the students felt comfortable discussing these topics with the parent, as well as with their advisors and teachers, the school nurse, or their doctor. The questions turned introspective for responses comparing their knowledge and experiences to that of their friends, their reasons for engaging in a particular activity and some of the concerns or risks of the doing so. The last section dealt with assessing the program with questions about the most effective way to prevent pregnancy and STDs, about the effect of the program, about the number of years participating in such a program, and about whether the student trusted the physicians teaching the classes.

Surveying was done in the students' homeroom class periods. The first survey was given at the end of the school year in June 1995 after the students had received the program. The second survey came two weeks before the start of the program in January 1996. The third survey was given two weeks after the program concluded in May 1996. Homeroom teachers distributed, proctored, and returned the surveys, stressing and ensuring confidentiality of the responses, but providing no help, assistance, information, or clarification of the survey or its questions. The completed surveys were compiled in the central office and returned to the residency program. They were numbered in sequential order as the responses were hand recorded and were reviewed for

completeness and for questionable, spurious, or misrepresented responses. No mechanism was used to force the students to complete the survey.

The database was reviewed periodically for data entry errors as well as for questionable or missing responses, to insure accuracy at the "face-value" level before proceeding to the analysis of the results. Errors were compared to the original survey and corrected as needed, and questionable answers were compared to the rest of the survey's answers. If a questionable answer were illogical or consistent with an obvious pattern (such as a block of all "Es"), the questionable answers were excluded to err on the side of underreporting rather than over-reporting. Further, if the answers also contained handwritten comments to the side suggesting inaccurate reporting, these were excluded for the same reason. Once the database was confirmed, the set was analyzed using SPSS® 8.0 for Windows, with statistical significance attributed to differences using the Kruskal-Wallis test of non-parametric variables, with less than five percent chance of a type-I error ($a<0.05$).

Results

Baseline Demographic Data

A total of 1,727 records were counted and collected from the three survey dates. The June 1995 set included 455 surveys, the January 1996 set included 643 surveys, and the May 1996 set included 629 surveys. The table below (table 1) outlined the breakdown of the respondent pool compared to the school's reported census, which included several special education students. The students provided responses to over 95% of the questions. This included 56 surveys where it was determined the student

might have provided one or several spurious, illogical, or unreliable answers to some of the questions, especially regarding the high-risk behaviors. The questionable answers were excluded, but the remaining responses were included. Further, three of surveys were excluded altogether because of comments or concerns of a complete lack of accurate information, and three more were counted, but were completely blank.

Table 1. Surveys Used by Grade and Survey Date, with Percentage of School Census

	Post 1995		Pre 1996		Post 1996		**Totals**	
Grade	Surveys	Census	Surveys	Census	Surveys	Census	**Surveys**	**Census**
7th	222 (69.8%)	318	262 (87.3%)	300	267 (96.0%)	278	**751 (83.8%)**	**896**
8th	110 (49.1%)	224	225 (85.6%)	263	213 (87.3%)	244	**548 (75.0%)**	**731**
9th	120 (67.0%)	179	155 (99.4%)	156	139 (97.2%)	143	**414 (86.6%)**	**478**
Total	**455 (63.0%)**	**722**	**643 (89.2%)**	**721**	**629 (95.9%)**	**656**	**1,727 (82.3%)**	**2099**

The reported ages of the respondents ranged from 11 to 20, with more than 98% of the seventh graders aged 12 to 14, the eighth graders 13 to 15, and the ninth graders age 14 to 16. For the ages above 16, there was no information to discount the answers provided. The seventh graders made 43.8% of total responses, eighth graders comprised 32.0%, and ninth graders comprised 24.0%. Individually, seventh graders provided 49.1% of the responses in 1995, and 40.7% and 42.4% of the pre- and post-instruction surveys in 1996, respectively. Eighth graders provided responses at rates of 24.3%, 35.0%, and 33.9%, and the ninth graders provided responses at rates of 26.5%, 24.1%, and 22.1%, respectively. Despite the statistical correlation of grade level with age, none existed of either factor with ethnicity or gender.

The group was almost evenly distributed between male and female, with 13 more women and with eleven omitting a response. No statistical differences were observed overall although the 1996 group had more males than females in its eighth and ninth grade classes, and the 1995 and the seventh grade in 1996 had more females than males. The reported ethnic background was 39.3% White, 12.2% Hispanic, 31.4% Black, 2.6% Oriental, 1.7% Native-American, 0.5% Middle Eastern, and 12.2% of multiple backgrounds. Statistical significance was not seen with age or grade level, but with gender, with slightly fewer White and Hispanic girls and more Black, Native-American, and multiple ethnicity minority women.

School performance as assessed by self-reporting of grades was 94.3% reporting As, Bs, and Cs, with the peak being Bs. No differences were seen with individual survey groups or by grade level, but in subset groups differences appeared. By gender, the distribution of grades favored the women in all of the year groups. By ethnicity, some differences were observed with the distribution of the grades, but no specific pattern was identified.

Home structure as assessed by parental living arrangement showed statistical significance by gender, age, and grade level. Overall, 63.3% lived with both natural parents. Further, 21.0% lived with the mother and a stepfather, and 3.8% lived with the father and a stepmother. Of the rest, 4.5% lived with the mother alone, 2.9% lived with the father alone, 1% lived with one parent and another companion, and 3.0% lived in some other arrangement. Differences were seen within the ethnic groups for different living arrangements and are outlined in the table below (table 2). No statistically significant differences were found between the genders by their living arrangement.

Table 2. Home Living Arrangement by Ethnicity, in percentile

\Home Race\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living	**Totals of Population**
White	72.4	18.6	3.1	1.9	3.0	0.1	0.1	0.6	**38.9**
Black	59.7	19.4	5.0	2.4	8.6	0.6	0.6	3.7	**31.1**
Hispanics	57.4	27.3	2.4	4.8	2.4	0.5	1.0	4.3	**12.1**
Oriental	40.9	27.3	13.6	6.8	0.0	2.3	0.0	9.1	**2.6**
Middle Eastern	37.5	0.0	0.0	12.5	0.0	12.5	0.0	37.5	**0.5**
Native American	69.0	13.8	0.0	10.3	3.4	0.0	0.0	3.4	**1.7**
Multiple Ethnicity	57.3	27.5	2.8	3.3	2.8	0.0	1.9	27.5	**12.2**
Totals of Living	**63.3**	**21.0**	**3.8**	**2.9**	**4.5**	**0.4**	**0.6**	**3.0**	———

Overall, 32.1% knew that one or both of their parents were a teen parent themselves. The responses were statistically significant regarding age, gender, and grade (table 3). Both genders equally knew if their parents were not teen parents, but the females knew if either of their parents were a teen parent more than the males. The difference came with the girls knowing the affirmative answer whereas the males did not know at all. Older teens were the more likely to know than the younger teens. Further, the percentage of students' knowledge with teenage parenthood rose with age and grade level, with the unknown and the "no" decreasing over the same time periods. Of the teen parents, the mother alone was the most frequent at 57.6%, with both parents at 35.7%, the father at 4.2%, and 2.5% not knowing which one. With ethnicity, there were also significant differences between the groups (table 4). 62.5% of Middle Eastern students and 44.3% of Black students were from families with at least one teenage parent and represented the highest rates. Native-American students were next at 35.7%, followed by multiple background students at 33.3%, Hispanics at 30.1%, Whites at 23.1%, and Orientals at 14.0%. Living arrangement showed differences with both parent homes

having the lowest rate of teen parents and the highest rates with remarried homes and other types of living arrangements (table 5).

Table 3. Teen Parenting by Gender and Grade Level, in percentile

\Grade &Gender Response\	7th Graders	8th Graders	9th Graders	Female	Male	**Total**
Yes	27.9	33.9	37.3	35.2	29.1	**32.1**
No	60.1	56.2	55.4	57.6	57.8	**57.6**
Don't Know	12.0	9.9	7.3	7.2	13.1	**10.2**

Table 4. Teen Parenting by Ethnicity, in percentile

\Ethnicity Response\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity	**Totals**
Yes	23.1	44.3	30.1	14.0	62.5	35.7	33.3	**32.1**
No	67.9	45.9	58.3	62.8	37.5	46.4	56.5	**57.6**
Don't Know	9.0	9.8	11.7	23.3	0.0	17.9	10.1	**10.2**

Table 5. Teen Parents by Home Living Arrangement, in percentile

\Home Response\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living	**Totals**
Yes	24.8	48.3	47.6	38.0	32.1	28.6	40.0	46.0	**32.1**
No	65.3	43.8	39.7	46.0	56.4	57.1	30.0	36.0	**57.6**
Don't Know	9.9	7.9	12.7	16.0	11.5	14.3	30.0	18.0	**10.2**

Self-Reported Prevalence Rates for High Risk Behaviors

Self-reported prevalence for all of the high-risk behaviors was statistically significant using grade and age as independent variables. When using gender as the variable, smoking and alcohol usage had insignificant differences, but differences with smokeless tobacco use, illegal drug use, and sexual activity were present. Each of the tables below outline the results by grade and/or gender, in percentile, with the total prevalence of the entire population listed at the bottom.

Tobacco Usage

Cigarette smoking rate increased with age and grade, with the differences being statistically significant (table 6). No significant differences were seen between the genders. With different ethnic groups, differences were evident with Blacks being the overall least active group (table 7). Grades made a difference in cigarette use and experimentation with more frequency seen in the students reporting lowering grades. Home environment seemed to also have an impact on experimentation and use, with students living with both parents being the least active and students from single-parent homes and other arrangements being the most.

Table 6. Cigarette Usage by Grade Level, in percentile

\Use Grade\	Never	Once or Twice	Not Regularly	Monthly	Weekly	Daily	% Ever
7th	59.8	21.7	9.0	3.9	2.6	3.0	**40.2**
8th	42.5	29.4	15.9	3.8	4.4	4.0	**57.5**
9th	45.4	19.3	17.8	6.9	4.4	6.2	**54.6**
Total	**50.9**	**23.6**	**13.3**	**4.6**	**3.6**	**4.0**	**49.1**

Table 7. Prevalence of Cigarette Use by Ethnicity, in percentile

\Ethnicity Use\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity	**Totals**
Never	53.4	51.1	51.7	31.0	42.9	60.7	45.2	**50.9**
1-2 times	19.9	30.7	17.4	31.0	14.3	14.3	21.6	**23.6**
Irregular	13.9	10.5	14.5	26.2	0.0	7.1	15.9	**13.3**
Monthly	4.6	3.8	6.8	2.4	0.0	0.0	5.8	**4.6**
Weekly	3.1	2.5	3.9	7.1	14.3	7.1	6.7	**3.6**
Daily	5.1	1.3	5.8	2.4	28.6	10.7	4.8	**4.0**

Smokeless tobacco use was much less frequently reported overall. Statistical significance was again seen, with use increasing with age and grade (table 8). Males

were more likely to have tried chewing tobacco than females. Grades made a difference with smokeless tobacco use and experimentation, with students reporting lower grades having higher usage. Ethnically, Middle Easterners, Orientals, Native-Americans, multiple backgrounds, and Whites were more likely to experiment or use it than Blacks or Hispanics. Home environment favored maternally based homes, including both parents at home, as having the lowest frequencies, and father-based structures without the mother and other living arrangements as having the highest rates.

Table 8. Smokeless Tobacco Usage by Grade Level, in percentile

\Use Grade\	Never	Once or Twice	Not Regularly	Monthly	Weekly	Daily	% Ever
7th	91.9	6.3	0.9	0.4	0.0	0.4	**8.1**
8th	87.5	8.2	2.5	0.4	0.4	1.1	**12.5**
9th	87.7	5.4	3.7	1.0	1.2	1.0	**12.3**
Total	**89.5**	**6.7**	**2.1**	**0.5**	**0.4**	**0.8**	**10.5**

Alcohol Usage

Alcohol use had the highest self-reported prevalence of any of the behaviors studied. Differences were noticeable with increasing age and grade levels (table 9). No significant differences were seen between the genders. Grades made a difference with alcohol use and experimentation, with higher frequencies observed with students reporting lower grades. Ethnic differences were seen with Hispanics, Middle Easterners, multiple background, and Orientals being more active than Native Americans, Whites, and Blacks (table 10). Living arrangements had an effect on the prevalence rates of alcohol use and experimentation with the least prevalent group coming from living with both parents, and the most prevalent group living with other than either parent (table 11).

Table 9. Prevalence of Alcohol Use by Grade Level, in percentile

\Use Grade\	Never	Once or Twice	Not Regularly	Monthly	Weekly	Daily	% Ever
7th	47.4	31.4	15.8	2.8	1.5	1.1	**52.6**
8th	30.4	35.9	24.3	5.9	2.7	0.9	**69.6**
9th	26.3	24.6	30.0	11.3	4.9	2.9	**73.7**
Total	**36.9**	**31.2**	**21.9**	**5.8**	**2.7**	**1.5**	**63.1**

Table 10. Prevalence of Alcohol Use by Ethnicity, in percentile

\Ethnicity Use\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity	**Totals**
Never	36.9	40.5	32.9	23.3	28.6	57.1	31.7	**36.9**
1-2 times	32.9	32.1	26.1	39.5	0.0	21.4	29.3	**31.2**
Irregular	23.0	17.6	25.6	27.9	42.9	10.7	25.0	**21.9**
Monthly	4.3	5.3	7.7	4.7	0.0	7.1	10.6	**5.8**
Weekly	2.0	3.4	4.8	0.0	0.0	0.0	1.9	**2.7**
Daily	0.9	1.1	2.9	4.7	28.6	3.6	1.4	**1.5**

Table 11. Alcohol Use by Home Living Arrangement, in percentile

\Home Use\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living	**Totals of Population**
Never	40.7	28.6	31.7	46.0	34.6	0.0	30.0	20.0	**36.9**
1-2 times	31.0	35.0	27.0	16.0	33.3	50.0	20.0	24.0	**31.2**
Irregular	20.6	24.9	30.2	20.0	16.7	33.3	30.0	24.0	**21.9**
Monthly	5.2	6.4	3.2	14.0	6.4	0.0	20.0	8.0	**5.8**
Weekly	1.9	3.6	1.6	0.0	9.0	16.7	0.0	6.0	**2.7**
Daily	0.6	1.4	6.3	4.0	0.0	0.0	0.0	18.0	**1.5**

Drug Usage

Illegal drug usage was markedly lower than alcohol or cigarettes as a whole, but higher than chewing tobacco in use. It, like the other substances, showed a statistically significant increase of usage with age and grade level. Also evident was a statistically significant difference between genders with teen males being more likely to experiment with or use drugs (table12). Grades made a difference with illegal drug use and

experimentation, with higher frequencies observed with students reporting lower grades. Ethnic differences existed between the groups with less experimentation and usage among the White, Black, and Hispanic groups overall (table 13). Home structure showed the least active students came from homes with both parents and the most active students from homes with a non-parentally structured living arrangement (table 14).

Table 12. Prevalence of Illegal Drug Use by Grade Level and Gender, in percentile

Grade\Use	Never	1-2Times	Irregularly	Monthly	Weekly	Daily	% Ever
7th	91.7	4.3	1.6	0.9	0.5	0.8	**9.3**
8th	82.7	9.1	3.0	2.5	1.3	1.3	**17.3**
9th	73.3	7.6	8.4	6.4	1.2	3.2	**26.7**
Female	87.2	6.2	3.6	1.5	0.9	0.6	**12.8**
Male	81.5	7.1	3.9	4.0	1.0	2.5	**18.5**
Total	**84.5**	**6.6**	**3.7**	**2.7**	**1.0**	**1.5**	**15.5**

Table 13. Illegal Drug Use by Ethnicity, in percentile

\Ethnicity Use\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity	**Totals**
Never	88.5	85.5	83.6	78.6	57.1	85.7	70.9	**84.5**
1-2 times	4.3	6.7	5.3	16.7	0.0	7.1	13.6	**6.6**
Irregular	3.2	2.3	5.8	2.4	14.3	0.0	7.3	**3.7**
Monthly	2.1	3.4	2.4	0.0	14.3	0.0	3.9	**2.7**
Weekly	0.3	1.1	2.4	0.0	0.0	0.0	1.5	**1.0**
Daily	1.5	1.0	0.5	2.4	14.3	7.1	2.9	**1.5**

Table 14. Illegal Drug Use by Home Living Arrangement, in percentile

\Home Use\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living	**Totals**
Never	89.1	80.4	69.8	80.0	80.8	83.3	50.0	49.0	**84.5**
1-2 times	5.1	8.1	14.3	4.0	9.0	16.7	30.0	12.2	**6.6**
Irregular	2.4	4.5	7.9	4.0	5.1	0.0	20.0	16.3	**3.7**
Monthly	1.8	3.9	4.8	12.0	3.8	0.0	0.0	2.0	**2.7**
Weekly	0.5	1.4	0.0	0.0	0.0	0.0	0.0	12.2	**1.0**
Daily	1.2	1.7	3.2	0.0	1.3	0.0	0.0	8.2	**1.5**

Teenage Sexuality

Teenage sexuality responses are outlined in subsections of prevalence of sexual experience, number of partners, prevalence of sexually transmitted diseases, and method of birth control. 549 of the 1,727 responses, or 31.8%, reported experience with sexual activity. Conversely, 1,154 of the 1,727 responses, or 66.8%, reported never engaging in sexual activity. Only 24, or 1.4%, did not provide an answer. Statistically significant differences existed by age, grade, and gender for the first four questions when using the entire population. Also reported for the latter three topics and questions are the results of the sexually active group, excluding the sexually abstinent.

In evaluating for concordance among the several questions regarding sexual activity, very small deviations were seen. Of the group of respondents that indicated never having engaged in sexual activity, nine (0.78%) reported having a sexual partner (five with one, and four with more than three). One more of those that answered as never engaging in intercourse reported having contacted a sexually transmitted disease (two with twice and one with one). Two omitted answering either question. Of the group of respondents that indicated having sexual activity, ten (1.8%) reported having no sexual partners (three came from the daily group, three came from the monthly group, and four came from the once/twice group). Seven (1.3%) reported intercourse once or twice but listed three or more partners. Six (1.1%) did not offer an answer to the number of people. In all, only 59 of 1,727 (3.4%) responses were missing or questionable.

Prevalence of Sexual Experience

Prevalence rates of reported teen sexual intercourse were statistically significant by age, grade, and gender. Increasing age and grade level correlated with increasing rates, even within the sexually active group. Males tended to have higher rates than females regardless of age or grade, indicating early experience (table 15 and 16). Grades did not seem to have an effect on this behavior. Ethnic differences existed (table 17) with Whites, Orientals, and Native-Americans being the most abstinent groups. The most abstinent groups were Oriental and White women at 90.5% and 88.2%, respectively. The least abstinent groups were the Black males and Middle Eastern females at 36.2% and 25.0%, respectively. For teenage females, living with her father favored not engaging in intercourse while for both genders, living without their parents had the highest rates of activity (table 18). Experience level had a positive correlation in both groups when assessed against whether either parent was a teen parent (table 19).

Table 15. Prevalence of Sexual Intercourse by Grade Level and Gender, in percentile

\Rate Grade\	Never	Once or Twice	Not Regularly	Monthly	Weekly	Daily	% Ever
7th	77.5	10.6	5.4	2.3	1.2	3.1	**22.5**
8th	63.7	16.9	10.1	0.9	4.2	4.2	**36.3**
9th	55.6	17.8	12.1	8.1	1.5	4.9	**44.4**
Female	77.0	12.2	6.1	1.9	0.6	2.2	**23.0**
Male	58.2	16.5	11.0	6.8	1.8	5.7	**41.8**
Total	**67.8**	**14.3**	**8.5**	**4.3**	**1.2**	**3.9**	**32.2**

Table 16. Sexually Active Group by Grade Level and Gender, in percentile

\Rate Grade\	Once or Twice	Not Regularly	Monthly	Weekly	Daily	*n (number)*
7th	47.0	23.8	10.1	5.4	13.7	**168**
8th	46.5	27.8	11.6	2.5	11.6	**198**
9th	40.0	27.2	18.3	3.3	11.1	**180**
Female	53.3	26.4	8.1	2.5	9.6	**197**
Male	39.4	26.3	16.3	4.3	13.7	**350**
Total	**44.4**	**26.4**	**13.3**	**3.6**	**12.2**	**549**

Table 17. Rate of Sexual Intercourse by Ethnicity, in percentile

\Ethnicity Rate\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity	**Totals**
Never	80.7	53.4	65.5	81.0	42.9	72.4	63.5	**67.8**
1-2 times	8.6	23.1	12.1	4.8	0.0	6.9	15.2	**14.3**
Irregular	5.3	12.2	7.3	7.1	14.3	10.3	10.4	**8.5**
Monthly	2.1	7.0	5.3	0.0	0.0	3.4	4.3	**4.3**
Weekly	0.5	1.7	1.0	0.0	14.3	0.0	2.4	**1.2**
Daily	2.9	2.6	8.7	7.1	28.6	6.9	4.3	**3.9**

Table 18. Rate of Sexual Intercourse by Living Arrangement, in percentile

\Home Rate\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living	**Totals**
Never	75.5	56.9	52.4	58.0	57.7	16.7	50.0	34.0	**67.8**
1-2 times	11.6	18.9	17.5	24.0	17.9	33.3	20.0	18.0	**14.3**
Irregular	5.6	13.9	15.9	10.0	10.3	33.3	10.0	14.0	**8.5**
Monthly	3.2	5.8	6.3	2.0	3.8	0.0	20.0	14.0	**4.3**
Weekly	1.0	0.8	1.6	0.0	2.6	0.0	0.0	6.0	**1.2**
Daily	3.1	3.6	6.3	6.0	7.7	16.7	0.0	14.0	**3.9**

Table 19. Rate of Sexual Intercourse by the Parent's History of Prior Teen Pregnancy, in percentile

\Rate Teen Parent\	Never	Once or Twice	Not Regularly	Monthly	Weekly	Daily
Yes	54.8	19.1	13.4	7.2	1.9	3.5
No	75.7	11.5	5.7	2.8	0.8	3.4
Don't Know	60.9	16.0	8.9	4.1	1.2	8.9
Total	**67.8**	**14.3**	**8.5**	**4.3**	**1.2**	**3.9**

Number of Partners and the Sexually Active Group

The number of sexual partners overall and from the sexually active group is both shown below. Although the eighth graders made up a larger number than the ninth graders, the percentage of active eighth graders was less, 36.7% compared to 45.7%. Gender differences remained the same and were statistically significant, with almost two-thirds of the sexually active group being male (table 20 and 21). The majority of sexually active students made Bs and Cs. Statistical differences were evident between the different ethnic groups, with Black teens accounting for 44.8% of the sexually active group compared to 23.0% of Whites, with Hispanics and multiple ethnic background at 13.3% and 14.4%, respectively (table 22). Almost half of the sexually active group came from homes with two parents and slightly over one-third more from homes having the mother and a stepfather; the remainder came from the other groups (table 23). The sexually active group had almost equal numbers of parents that were and were not teen parents themselves.

Table 20. The Number of Sexual Partners by Grade Level and Gender, in percentile

\Partners Grade\	None	One	Two	Three	More than Three	% Ever
7th	77.4	8.5	5.6	2.0	6.4	**22.6**
8th	63.6	15.1	8.5	4.4	8.5	**36.4**
9th	56.5	17.9	7.2	6.5	11.9	**43.5**
Female	76.2	11.5	4.9	2.7	3.7	**23.8**
Male	57.9	13.9	8.8	4.9	12.9	**42.1**
Total	**66.9**	**12.4**	**6.8**	**3.8**	**8.0**	**33.1**

Table 21. The Number of Partners in the Sexually Active Group by Grade Level and Gender, in percentile

\Partners Grade\	One	Two	Three	More than Three	*n (number)*
7th	37.5	25.0	8.9	28.6	**168**
8th	41.4	23.2	12.1	23.2	**198**
9th	41.1	16.6	14.9	27.4	**175**
Female	50.5	21.4	11.7	16.3	**196**
Male	34.2	21.7	12.2	31.9	**345**
Total	**40.1**	**21.7**	**12.0**	**26.2**	**543**

Table 22. The Number of Partners in the Sexually Active Group by Ethnicity, in percentile

\Ethnicity Partners\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity
Once	27.1	43.6	12.8	0.9	0.0	0.9	13.3
Twice	16.1	52.5	13.6	0.8	0.8	0.8	14.4
Three	24.6	50.8	15.4	1.5	0.0	3.1	4.6
More then 3	21.8	37.3	12.7	3.5	2.1	1.4	20.4
% of Total	**23.6**	**45.6**	**13.0**	**1.5**	**0.8**	**1.3**	**14.2**

Table 23. The Number of Partners in the Sexually Active Group by Living Arrangement, in percentile

\Home Partners\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living
Once	48.6	30.7	5.5	2.3	6.4	0.9	0.9	4.1
Twice	55.1	25.4	4.2	6.8	6.8	0.0	0.0	0.8
Three	35.4	35.4	7.7	4.6	3.1	1.5	3.1	9.2
More then 3	50.0	25.4	4.9	2.1	5.6	1.4	0.7	9.9
% of Total	**48.7**	**28.9**	**5.5**	**3.4**	**6.0**	**0.9**	**0.9**	**5.6**

Prevalence of Sexually Transmitted Diseases

Overall, STDs were quite low for the entire group of teenagers, including the sexually active group (table 24 and 25). Number of sexual partners correlated with the few that reported acquiring a STD (table 26). Similarly, reported STD occurrences followed the patterns of the sexually active group, with highest frequencies occurring by

gender with males and by living arrangement with teenagers from homes with two parents and the mother and a stepfather. Grades had no effect on occurrence. Children of teen parents showed no differences in STD rates. Ethnicity with STD occurrence is shown below (table 27). STD occurrence had some correlation to the method or lack of contraception, discussed in the next section (table 30).

Table 24. Prevalence of STDs in Total Group, in percentile

Grade\STDs	None	One	Two	Three	> Three	**% Ever**
7th	98.8	0.3	0.4	0.1	0.4	**1.2**
8th	98.7	0.7	0.0	0.0	0.5	**1.3**
9th	95.8	2.0	1.2	0.2	0.7	**4.2**
Total	**98.1**	**0.8**	**0.5**	**0.1**	**0.5**	**1.9**

Table 25. Prevalence of STDs in Sexually Active Group, in percentile

\STDs Grade\	None	One	Two	Three	More than Three	**% of Group**
7th	94.7	1.2	1.8	0.6	1.8	**5.3**
8th	96.5	2.0	0.0	0.0	1.5	**3.5**
9th	92.1	3.9	1.7	0.6	1.7	**7.9**
Total	**94.5**	**2.4**	**1.1**	**0.4**	**1.6**	**5.5**

Table 26. Correlation between Number of Partners and STD Occurrence, in percentile

\STDs # of Partners\	None	One	Two	Three	More than Three
One	97.7	2.3	0.0	0.0	0.0
Two	98.3	0.9	0.9	0.0	0.0
Three	96.9	1.5	1.5	0.0	0.0
More than 3	90.4	3.0	0.7	0.7	5.2
Total	**94.5**	**2.4**	**1.1**	**0.4**	**1.6**

Table 27. STD Occurrence in the Sexually Active Group by Ethnicity, in percentile

\Ethnicitiy STDs\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity	% Total
None	96.9	96.4	87.5	87.5	25.0	100.0	94.8	**94.5**
Once	2.3	2.0	2.8	0.0	25.0	0.0	2.6	**2.4**
Twice	0.0	0.8	4.2	0.0	0.0	0.0	1.3	**1.1**
Three	0.0	0.4	0.0	0.0	0.0	0.0	1.3	**0.4**
More then 3	0.8	0.4	5.6	12.5	50.0	0.0	0.0	**1.6**

Method of Contraception and Protection

Contraception and birth control were reported by a majority of the sexually active group. Condoms were the overwhelming choice of protection for sexually active group at almost eighty percent, without any significant difference by grade level. 7.5% of this group reported not using anything due to not being active, and another 7.2% reported not using anything despite being active. No significant differences occurred between males and females with these methods. Three percent of the women used the birth control pill with 0.6% of the males relying on their partner to use it. None of the women used Depo-Provera (the "shot") but 1.1% of the males relied on their partners to use it. Sponge use was 1% for both genders (table 28 and 29). Less than 4% of the inactive group reported use of any contraceptives, with condoms 2.4%, the birth control pill 0.6%, and nothing used 0.9%. Ethnicity showed no significant difference among the total group. Home structure likewise did not show significant difference, except for the group not living at home where condom use was at 65% and no contraception use was at 15%. No difference was seen whether the parents were teen parents or not. The occurrence of STDs correlated to the method of or lack of contraception, with condoms providing the best protection and the sponge, the pill, and those with no form of contraception showing the highest rates (table 30).

Table 28. Method of Contraception used by the Student Body, in percentile

Grade	Not Active	Condoms	Sponge	"The Pill"	"The Shot"	Nothing (Active)
7th	77.1	20.5	0.1	0.4	0.0	1.9
8th	64.6	30.6	0.6	0.7	0.2	3.3
9th	53.8	38.8	0.5	2.0	0.2	4.7
Female	77.1	19.2	0.2	1.2	0.0	2.3
Male	57.6	37.3	0.5	0.6	0.4	3.7
Total	**67.5**	**28.1**	**0.4**	**0.9**	**0.2**	**3.0**

Table 29. Method of Contraceptive Used by the Sexually Active Group

Grade	Not Active	Condoms	Sponge	"The Pill"	"The Shot"	Nothing (Active)
7th	12.4	81.8	0.6	1.2	0.0	4.1
8th	8.6	80.8	1.5	1.0	0.5	7.6
9th	2.8	82.8	1.1	2.2	0.6	10.6
Female	7.6	80.2	1.0	3.0	0.0	8.1
Male	8.0	82.4	1.1	0.6	0.9	7.1
Total	**7.8**	**81.8**	**1.1**	**1.5**	**0.4**	**7.5**

Table 30. Correlation between the Method of Contraception and STD Rate in the Active Group, in percentile

\# of STD Method\	None	One	Two	Three	More than Three	***n*** ***(number)***
Condoms	96.7	1.8	0.9	0.2	0.4	**448**
Inactive	85.7	7.1	0.0	2.4	4.8	**42**
Nothing	85.0	2.5	0.0	0.0	12.5	**40**
The Pill	87.5	0.0	12.5	0.0	0.0	**8**
The Shot	100.0	0.0	0.0	0.0	0.0	**2**
Sponge	60.0	20.0	20.0	0.0	0.0	**5**
Totals	**94.5**	**2.4**	**1.1**	**0.4**	**1.7**	**545**

Self-Reported Pregnancy Rates

The occurrence of pregnancy and the resultant consequences of births and abortions were quite low overall for the total group. The rates of pregnancies, births, and abortions discussed and outlined below were further separated to show the extent of occurrences for the one-third that were sexually experienced.

Prevalence of Pregnancy

The differences seen for the teen females were not statistically significant by age or grade level, but the differences for teen males were (table 31). 9.5% of the sexually active female respondents reported having been pregnant while 10.5% of the sexually active males reported having gotten a woman pregnant (table 32). Grades did not make a difference in either group. A majority of the males who produced pregnancies lived at home with both parents while the teen women either lived at home with both parents or with the mother and a stepfather (table 33). While the numbers were too small for significance, the majority of pregnancies were in Black and Hispanic females while the multi-ethnic males stood out (table 34). Having a parent as a teen parent favored the occurrence of pregnancy for the teen females whereas the opposite was true for the males (table 35).

Table 31. Pregnancy from the Total Group by gender and grade, in percentile

Grade	Gender	None	One	Two	Three	> Three	% Ever
7th	Male	98.3	0.9	0.3	0.3	0.3	**1.7**
	Female	98.4	0.5	0.0	0.5	0.5	**1.6**
8th	Male	96.0	2.2	0.4	0.4	1.1	**4.0**
	Female	98.5	0.7	0.4	0.0	0.4	**1.5**
9th	Male	88.9	5.3	0.5	1.6	3.7	**11.1**
	Female	95.6	2.4	2.0	0.0	0.0	**4.4**
Total	**Male**	**95.2**	**2.3**	**0.5**	**0.6**	**1.4**	**4.8**
	Female	**97.8**	**1.0**	**0.6**	**0.2**	**0.3**	**2.2**

Table 32. Pregnancy from the Sexually Active Group by Gender and Grade, in percentile

Grade	Gender	None	One	Two	Three	> Three	**Number**
7th	Male	95.5	2.7	0.0	0.9	0.9	**5**
	Female	88.7	3.8	0.0	3.8	3.8	**6**
8th	Male	92.1	3.9	0.8	0.8	2.4	**10**
	Female	94.4	2.8	1.4	0.0	1.4	**4**
9th	Male	80.0	10.5	0.0	2.1	7.4	**19**
	Female	87.8	6.8	5.4	0.0	0.0	**9**
Total	**Male**	**89.5**	**5.4**	**0.6**	**1.2**	**3.3**	**35**
	Female	**90.5**	**4.5**	**2.5**	**1.0**	**1.5**	**19**

Table 33. Pregnancies in the Sexually Active Group by Gender and Living Arrangement, by number

\Home Gender\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living
Female	8	8	0	0	2	0	0	1
Male	21	5	2	3	3	0	0	1
Total	**29**	**13**	**2**	**3**	**5**	**0**	**0**	**2**

Table 34. Pregnancies in the Sexually Active Group by Gender and Ethnicity, by number

\Ethnicity Gender\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity
Female	4	5	7	0	0	0	3
Male	8	11	4	2	1	2	7
Total	**12**	**16**	**11**	**2**	**1**	**2**	**10**

Table 35. Pregnancies in the Sexually Active Group by the Parent Being a Teen Parent, by number

\Response Gender\	Yes	No	Don't Know	**n (number)**
Female	11	7	1	**19**
Male	12	16	7	**35**
Total	**23**	**23**	**8**	**54**

Prevalence of Births

Births were even lower for the respondents with only nine being self-reported from the women's surveys, or 4.5% of the sexually active women, and 1.0% of the total women surveyed. Twenty-five males, or 7.5% of the sexually active males, and 3.4% of all the male respondents reported fathering a baby. For the males, number of births increased with age and grade. The opposite was true for the females with fewer births with increasing age (table 36 and 37). School performance did not appear to have an effect on birth number in the women, but males that fathered a baby reported lower grades. While the fathers tended to be from the Black, multi-ethnic, and Hispanic groups, the females tended to be White more than multi-ethnic or Black (table 38). Teen mothers living with their mother and stepfather stood out while the teen fathers living at home with both parents were most prevalent (table 39). Being a teen parent was not a factor for the males but was more so for the females (table 40).

Table 36. Occurrence of Births in the Total Group by gender and grade, in percentile

Grade	Gender	None	One	Two	Three	> Three	% Ever
7th	Male	98.0	1.1	0.0	0.9	0.0	**2.0**
	Female	98.4	0.3	0.8	0.3	0.3	**1.6**
8th	Male	97.4	1.1	0.4	0.4	0.7	**2.6**
	Female	99.3	0.4	0.4	0.0	0.0	**0.7**
9th	Male	92.6	3.7	1.1	0.5	2.1	**7.4**
	Female	99.5	0.5	0.0	0.0	0.0	**0.5**
Total	**Male**	**96.6**	**1.7**	**0.4**	**0.6**	**0.7**	**3.4**
	Female	**99.0**	**0.3**	**0.5**	**0.1**	**0.1**	**1.0**

Table 37. Births in the Active Group by Gender and Grade Level, in percentile and by number

Grade	Gender	None	One	Two	Three	> Three	**Number**
7th	Male	94.5	3.7	0.0	1.8	0.0	**6**
	Female	88.7	1.9	5.7	1.9	1.9	**6**
8th	Male	95.3	1.6	0.8	0.8	1.6	**6**
	Female	97.2	1.4	1.4	0.0	0.0	**2**
9th	Male	86.5	7.3	2.1	0.0	4.2	**13**
	Female	98.6	1.4	0.0	0.0	0.0	**1**
Total	**Male**	**92.5**	**3.9**	**0.9**	**0.9**	**1.8**	**25**
	Female	**95.5**	**1.5**	**2.0**	**0.5**	**0.5**	**9**

Table 38. Births in the Active Group by Gender and Ethnicity, by number

\Ethnicity Gender\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity
Female	4	2	1	0	0	0	2
Male	3	7	4	1	1	1	8
Total	**7**	**9**	**5**	**1**	**1**	**1**	**10**

Table 39. Births in the Active Group by Gender and Living Arrangement, by number

\Home Gender\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living
Female	2	5	0	0	1	0	0	1
Male	14	5	3	1	1	0	0	1
Total	**16**	**10**	**3**	**1**	**2**	**0**	**0**	**2**

Table 40. Births in the Sexually Active Group by Gender and Parents Being a Teen Parent, by number

\Response Gender\	Yes	No	Don't Know	**n (number)**
Female	5	3	1	**9**
Male	9	10	6	**25**
Total	**14**	**13**	**7**	**34**

Prevalence of Abortions

Like births, abortions were small, numbering nine for the female respondents (4.5% of the sexually active females and 1.1% for the total female group) and 26 for the males (7.8% for the sexually active group and 3.6% for the total male group). Age and gender effects were similar for the other questions regarding sexual activity. For males, the rates increased with age. For the females, a divergence was observed with small peaks at the 7th and 9th grade level and a trough with the 8th graders. Again, the males outnumbered the females (table 41 and 42). School performance was not significant for either gender or grade level. Ethnicity favored Hispanic males and females, and multi-ethnic males (table 43). Home structure favored living with both parents for males and females and the mother-stepfather household for the teen females (table 44). One of the parents being a teen parent, like other issues with pregnancy, showed no significance for the males, but a correlation for the females (table 45).

Table 41. Abortions in the Total Group by Gender and Grade, in percentile

Grade	Gender	None	One	Two	Three	> Three	% Ever
7th	Male	98.0	1.1	0.3	0.3	0.3	**2.0**
	Female	99.0	0.3	0.5	0.3	0.0	**1.0**
8th	Male	97.0	2.2	0.0	0.7	0.0	**3.0**
	Female	99.6	0.4	0.0	0.0	0.0	**0.4**
9th	Male	92.7	3.6	0.5	1.0	2.1	**7.3**
	Female	98.0	2.0	0.0	0.0	0.0	**2.0**
Total	**Male**	**96.4**	**2.1**	**0.2**	**0.6**	**0.6**	**3.6**
	Female	**98.9**	**0.7**	**0.2**	**0.1**	**0.0**	**1.1**

Table 42. Abortions in the Sexually Active Group by Gender and Grade, in percentile

Grade	Gender	None	One	Two	Three	> Three	**Number**
7th	Male	94.5	3.7	0.0	0.9	0.9	**6**
	Female	92.7	1.8	3.6	0.0	0.0	**4**
8th	Male	94.4	4.0	0.0	1.6	0.0	**7**
	Female	98.6	1.4	0.0	0.0	0.0	**1**
9th	Male	87.9	5.1	1.0	2.0	4.0	**12**
	Female	94.6	5.4	0.0	0.0	0.0	**4**
Total	**Male**	**92.2**	**4.2**	**0.6**	**1.5**	**1.5**	**26**
	Female	**95.5**	**3.0**	**1.0**	**0.5**	**0.0**	**9**

Table 43. Abortions in the Sexually Active Group by Gender and Ethnicity, by number

\Ethnicity Gender\	White	Black	Hispanic	Oriental	Middle Eastern	Native American	Multiple Ethnicity
Female	1	3	4	0	0	0	1
Male	5	8	4	0	1	1	7
Total	**6**	**11**	**8**	**0**	**1**	**1**	**8**

Table 44. Abortions in the Sexually Active Group by Gender and Living Arrangement, by number

\Home Gender\	Both Parents	Mother/ Stepfather	Father/ Stepmother	Father only	Mother only	Father/ Companion	Mother/ Companion	Other Living
Female	5	3	0	0	1	0	0	0
Male	14	4	2	2	2	0	0	2
Total	**19**	**7**	**2**	**2**	**3**	**0**	**0**	**2**

Table 45. Abortions in the Sexually Active Group by Gender & Parents being a Teen Parent, by number

\Response Gender\	Yes	No	Don't Know	**n (number)**
Female	6	3	0	**9**
Male	8	11	7	**26**
Total	**14**	**14**	**7**	**34**

The Students' Comfort Level of Discussing High-Risk Behaviors with Adults

Parental Discussion with the Student

In evaluating the responses in this category, no statistically significant differences were evident between the grade levels except for discussion of STDs and the males impregnating females. By gender, the only significant differences involved discussions of smoking and sex. The students' reported involvement of their parents was quite high (>75%) in the areas of alcohol, tobacco, sex, and pregnancy for the women and was better than half for the remainder of the questions. The percent of students reporting their parents talking with them is outlined below (table 46).

No significant difference was evident between those that tried or used alcohol and those who reported never trying it. With the topic of smoking, teen females that smoked had less discussion overall than the group average. For smoking teen males, the opposite was true with overall slightly more discussion than the group average. Both genders had higher rates of discussion with increasing use. With chewing tobacco usage, no significant difference was evident between the abstinent and non-abstinent groups as well as between the genders. With drug use or experimentation, those students who reported use discussed this topic with a parent less frequently than the abstinent group. Parental discussion of sex was greater for the teen males who were experienced than for the

inexperienced. For the teen females, discussion of sex was higher overall without differences between the experienced and abstinent groups. Parental discussion of STDs was slightly over half in both genders of the inexperienced groups, but with more reported in the experienced female group and less in the experienced male group. Discussion of pregnancy with the teen males was less frequent in the active group compared with the inexperienced group, as was the case with STDs. Discussion of pregnancy among the teen women with their parents was around 81%, with a lower frequency in the experienced teen female group.

Table 46. Positive Responses for Parental Involvement in Discussing the Listed Topic Below with the Student by Grade Level and By Activity Level and Gender, in percentile

Grade	Alcohol	Tobacco	Drugs	Sex	STDs	Pregnancy	
						Males	Females
7th	79.3	65.3	81.4	83.0	51.6	61.3	81.7
8th	76.2	66.1	79.8	79.1	57.9	69.9	79.9
9th	73.7	64.0	78.7	82.4	60.3	77.8	81.8
Never Males	76.8	68.1	81.4	76.7	54.9	69.3	-----
Never Females	78.8	64.8	80.9	83.4	56.6	-----	81.9
Active Males	77.2	66.7	75.9	84.4	44.8	58.6	-----
Active Females	76.3	61.8	76.1	82.6	62.5	-----	60.0
Total	**77.0**	**65.3**	**80.3**	**81.6**	**55.5**	**68.4**	**81.3**

Student Discussing with the Parent

Students reported being comfortable discussing substance use, but not as much as with sexual issues (table 47). Alcohol and drugs were the only topics with statistically significant differences by age and grade as the variables, with the younger grades claiming more comfort than the older grades. Active teens were slightly less comfortable

than the inexperienced group, with the teen males being less so than the females. Smokers averaged a 10% lower comfort level compared to the non-smoking group. Male chewing tobacco users were similar to the male smokers in being over 10% less comfortable than the teen females. Drug use followed a similar pattern to tobacco and alcohol, with the experienced group of both genders being less comfortable than the inexperienced group. Discussing comfort with sex, teen males were slightly more comfortable than the females, with larger differences between the more active genders. Comfort discussing STDs was slightly over half for both genders, and for the small number that reported a STD, the teen women were more comfortable than the teen males. Comfort in discussing impregnating a woman was slightly more than half overall with the teen males, with a lower level noted in the active males. For the teen women, discussing pregnancy was also slightly more than half overall, with a slight drop among those who reported a pregnancy.

Table 47. Positive Responses for the Students Comfort with Discussing the Topic with Their Parents or Guardians, in percentile

Grade	Alcohol	Tobacco	Drugs	Sex	STDs	Pregnancy	
						Males	Females
7th	84.0	80.6	82.9	55.7	57.5	57.4	57.7
8th	80.7	77.9	77.8	52.6	54.8	52.4	57.6
9th	76.8	74.4	75.9	55.9	58.8	56.8	60.9
Never Males	83.3	82.8	81.2	55.7	58.1	56.4	-----
Never Females	84.2	84.0	83.1	53.5	56.2	-----	58.1
Active Males	77.1	69.8	65.6	58.4	50.0	43.4	-----
Active Females	82.7	76.2	66.4	50.5	56.3	-----	55.0
Total	**81.2**	**78.2**	**79.6**	**54.8**	**57.0**	**55.4**	**58.4**

Discussion with Teachers, School Personnel, and Physicians

When asked how comfortable the students would be discussing these topics with an outside person, such as a teacher, an advisor, the school nurse, or their doctor, the differences by grade level were statistically significant only for advisors and teachers. Slightly over a quarter felt comfortable with the school nurse, and a third were comfortable with teachers and advisors. However, approximately half of the students reported comfort with their physician. The differences between the genders also were statistically significant. While the gender responses were not greatly different, females were slightly more comfortable than their male counterparts with each area (table 48).

Table 48. Positive Responses of Total Group by Grade and Gender, in percentile

Grade		Advisor or Teacher		School Nurse		Doctor	
7th	Male	29.3	32.6	21.8	26.3	44.3	46.3
	Female	36.1		30.8		48.9	
8th	Male	25.7	28.5	23.8	27.5	50.2	51.8
	Female	30.6		31.5		52.9	
9th	Male	36.0	37.4	24.4	26.1	45.9	53.0
	Female	38.3		27.3		59.5	
Total	**Male**	**29.8**	**32.6**	**23.1**	**26.6**	**46.7**	**49.8**
	Female	**34.9**		**30.2**		**52.7**	

Self-reported Comparison with Friends Concerning Knowledge and Experience Levels

How students felt they compared with their friends in the areas of knowledge and experience with sex, alcohol and drugs, and tobacco use was the focus of the next section. The only difference between the grade levels that was statistically significant was in the area of smoking experience. The differences observed between the genders, with the exception for sexual experience, were all statistically significant.

Sex

Concerning knowledge and experience with sex, approximately half felt that they had the same experience level as their friends, whether male or female, experienced or not (table 49). 93-94% of those who reported no sexual experience answered that they had either the same experience or less than that of their friends. The females who reported sexual experience compared themselves to their friends as having the same or more experience when their reported activity level was more than just "once/twice" or "not regular." For the males, the pattern was similar, but their feeling of less experience remained around 15-30% despite the frequency of their activity. Concerning knowledge level between the genders, the same trend as seen with their experience level occurred.

Table 49. Comparison of the Total Group by Grade Level and Gender, in percentile

Grade	Sexual Experience			Sexual Knowledge		
	More	Less	Same	More	Less	Same
7th	12.4	38.6	49.0	26.5	15.1	58.4
8th	14.9	34.6	50.6	28.5	13.3	58.1
9th	17.4	34.9	47.7	30.7	13.3	56.0
Female	11.3	38.8	49.9	25.0	14.1	60.9
Male	17.6	33.9	48.5	31.3	14.2	54.5
Total	**14.4**	**36.4**	**49.2**	**28.2**	**14.1**	**57.8**

Alcohol and Drugs

Despite the relatively large exposure to alcohol among the overall group, on average over 40% of the students felt less experienced with alcohol than their friends. This countered the relative extent of knowledge of alcohol and drugs, for which approximately 80% reported being equally or more experienced than their peers (table 50). No consistent pattern was evident between the self-reported active and inactive

groups or the genders. The most frequent users reported equal or more experience than their friends did. The inexperienced reported less or equal experience than their friends. The teen males reported less experience than the women for alcohol, but more for illegal drugs.

Table 50. Comparison of the Total Group by Grade Level and Gender, in percentile

Grade	Alcohol/Drugs Experience			Alcohol/Drugs Knowledge		
	More	Less	Same	More	Less	Same
7th	11.6	45.0	43.4	25.5	20.9	53.6
8th	13.8	44.5	41.7	24.8	22.4	52.8
9th	18.4	39.5	42.2	28.9	21.1	50.0
Female	12.7	40.4	46.9	23.3	19.6	57.0
Male	15.2	46.7	38.0	29.0	23.4	47.6
Total	**13.9**	**43.5**	**42.6**	**26.1**	**21.4**	**52.5**

Tobacco

Although tobacco was reported to have been tried by more than half, and used by more than a quarter, almost half of the students reported their experience level as lower than their friends (table 51). With those that reported using cigarettes weekly and daily, comparison experience levels were higher. Knowledge levels were more consistent throughout the grade levels with half reporting the same, a quarter reporting more, and a quarter less knowledge than their friends were had. Smoking females reported more experience and knowledge levels as compared to their friends. Smoking males were more apt to report having the same experience and knowledge levels than their friends had. Chewing tobacco users had similar results as smokers.

Table 51. Comparison of the Total Group by Grade Level and Gender, in percentile

Grade	Tobacco Experience			Tobacco Knowledge		
	More	Less	Same	More	Less	Same
7th	11.9	48.3	39.8	22.4	22.4	55.2
8th	12.7	47.9	39.4	22.6	23.8	53.6
9th	15.9	49.8	34.3	23.9	23.7	52.4
Female	11.9	46.9	41.2	20.2	21.4	58.4
Male	14.4	50.1	35.5	25.5	24.9	49.6
Total	**13.1**	**48.5**	**38.3**	**22.8**	**23.2**	**54.0**

Reasons and Consequences to Engage in High Risk Behavior

Reasons

The next section dealt with reasons students reported a reason for engaging in a particular activity. In the tables with each reason offered to the students, the first column consolidated alcohol use with smoking and drugs (Drugs…) while the second column addressed having sexual intercourse (Sex). All the differences observed between the grade levels were statistically significant, except for using substances because of curiosity and for having sex to fit in (table 52). Those students who had no experience with substance use as a group answered negatively to each of these reasons, with curiosity standing out at almost a quarter of these respondents. Those that were experienced with substance use reported higher frequencies for all of the reasons cited, with particular note to the choices of curiosity, being fun, and liking the results. With sex, almost half of those who had experienced it cited such internal motivators as being old enough, believing it was fun, being curious, and liking the results. Such external answers as everyone was doing it, their friends were doing it, or trying to fit in were did not show such a sharp change as the other internal reasons. However, with their boyfriend or girlfriend wanting them to have sex, over 40% responded so (table 53).

Table 52. Positive Responses from the Total Group for Reasons to Engage in a Particular High Risk Behavior, in percentile

Grade	Old Enough		Believe Fun		Curious		Everyone is…	
	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex
7th	14.3	23.2	12.2	27.6	30.1	34.9	8.5	10.9
8th	15.7	29.2	16.9	34.5	32.6	40.9	10.8	11.9
9th	23.5	34.1	33.4	43.8	35.7	41.9	14.5	16.0
Total	**17.0**	**27.7**	**19.0**	**33.8**	**32.4**	**38.6**	**10.8**	**12.6**

Table 52 (continued). Positive Responses from the Total Group for Reasons to Engage in a Particular High Risk Behavior, in percentile

Grade	My Friends are…		Like the results…		To fit in…		My partner wants me to…	
	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex
7th	9.8	11.0	10.1	15.3	9.6	11.0	5.6	18.5
8th	12.5	10.6	12.9	22.1	8.3	9.3	7.3	25.7
9th	16.8	17.0	23.9	29.7	15.2	13.5	11.8	30.1
Total	**12.4**	**12.4**	**14.3**	**21.0**	**10.6**	**11.1**	**7.7**	**23.7**

Table 53. Positive Responses from the Active versus Inactive Groups for Reasons to Engage in a Particular High Risk Behavior, in percentile

Group	Old Enough		Believe Fun		Curious		Everyone is…	
	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex
Active	34.4	43.3	72.7	58.3	57.6	50.9	36.4	20.6
Inactive	11.1	20.4	8.1	22.1	24.5	32.9	7.2	8.6
Total	**17.0**	**27.7**	**19.0**	**33.8**	**32.4**	**38.6**	**10.8**	**12.6**

Table 53 (continued). Positive Responses from the Active versus Inactive Groups for Reasons to Engage in a Particular High Risk Behavior, in percentile

Group	My Friends are…		Like the results…		To fit in…		My partner wants me to…	
	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex	Drugs...	Sex
Active	37.5	21.5	68.8	44.1	34.4	19.3	16.1	42.5
Inactive	8.6	7.8	5.4	10.1	7.8	6.9	6.6	14.9
Total	**12.4**	**12.4**	**14.3**	**21.0**	**10.6**	**11.1**	**7.7**	**23.7**

Consequences

The possible consequences were also surveyed for sexuality and for substance use. The responses were quite the opposite of the reasons to engage in a particular activity. The responses were consistent regardless of the grade level, and thus, the small differences seen between the grade levels were not statistically significant (table 54). The more active the students were with using different substances, the more they reported a notably smaller effect of these consequences with the behaviors. With sexuality, the students considered the risks involved while discounting the effects, with a small decreasing trend in their responses as the activity levels rose.

Table 54. Positive Responses from the Total Group for Consequences of Engaging in a Particular High Risk Behavior, in percentile

Grade	Risk of sex on		Effect of sex on		Risk of use		Effect of use	
	Infections	Pregnancy	Self-Esteem	Reputation	Addiction	Injury/ Death	Health	Reputation
7th	87.8	88.7	68.1	74.9	85.9	85.0	88.5	73.3
8th	87.1	88.0	71.7	75.4	83.0	84.4	88.7	71.5
9th	87.8	89.6	67.4	76.0	80.8	81.5	85.0	68.0
Total	**87.6**	**88.7**	**69.1**	**75.4**	**83.7**	**83.9**	**87.6**	**71.4**

Effect of the Program

Preventing STDs and Pregnancy

In trying to determine the extent to which the training had an impact on the students' knowledge level and behaviors, the last section asked a series of questions. The first dealt with the best way to prevent pregnancy and STDs, noting that the course was an abstinence curriculum. Slightly over half gave "abstinence" as the best choice response for both questions (table 55 and 56). The responses from the more sexually

active groups answered "abstinence" less frequently than the total group, and either condoms or the withdrawal technique more frequently as the answer to both questions.

Table 55. Total Group's Responses for the Best Way to Prevent Pregnancy by Grade Level, in percentile

Grade	Best way to Prevent Pregnancy							
	Withdrawal	Condoms	Abstinence	Diaphragm	Sponge	The Pill	The Shot	Other
7th	19.7	20.1	40.5	1.2	1.0	10.2	2.1	5.2
8th	15.7	13.2	56.7	1.6	0.6	7.4	1.4	3.3
9th	6.2	11.5	67.7	1.3	2.3	6.2	2.1	2.8
Total	**15.0**	**15.7**	**52.5**	**1.3**	**1.2**	**8.3**	**1.9**	**4.0**

Table 56. Total Group's Responses for the Best Way to Prevent STDs by Grade Level, in percentile

Grade	Best way to prevent STDs							
	Withdrawal	Condoms	Abstinence	Diaphragm	Sponge	The Pill	The Shot	Other
7th	23.9	19.6	42.4	1.6	2.1	3.6	2.7	4.2
8th	17.2	14.7	59.6	1.0	1.0	2.1	1.4	2.9
9th	7.8	14.0	70.3	1.3	1.6	1.8	1.3	2.1
Total	**17.7**	**16.6**	**54.9**	**1.4**	**1.6**	**2.7**	**1.9**	**3.2**

Effect of the Program

In trying to ascertain if the program had affected any of the sexual practices or behaviors, the next two questions asked to consider their activity level before the training and answer whether there was any current change, or whether there might be any change in the following year. For those who had not begun experiencing sex before the training, the choices were continue to abstain, consider beginning in the next year, or had already begun since the training started. For those who already had experienced sexual activity, the choices were to continue being active, consider stopping, or returning to abstinence.

These questions were only answered by the two surveys after the abstinence program was provided to the students, with 1,093 responses provided. The difference in responses by grade level was statistically significant (table 57). With the students that reported no sexual experience early in the survey, 91.2% (666 out of 730) of the responses correlated with their responses given with this question. With the students that reported prior sexual experience early on the survey, 81.5% (296 out of 363) of the responses correlated with their prior answers given with this question. The second question asked whether the course as it was presented had an effect on the student's behaviors. The responses were fairly clear--no. The differences between the grade levels were statistically significant (table 58).

Table 57. The Program's Impact on Sexual Behavior from the Total Group by Grade Level, in percentile

Grade	Never had sex before the classes and...			Had sex before the classes and...		
	Abstain	Consider starting	Have started since	Continue	Consider stopping	Decided to abstain
7th	68.9	6.3	3.6	10.1	5.8	5.4
8th	54.5	10.9	3.5	16.0	7.7	7.4
9th	46.6	9.3	7.2	22.9	10.2	7.2
Total	**59.1**	**8.4**	**4.4**	**14.2**	**7.4**	**6.4**

Table 58. The Program's Impact on the Total Group by Grade Level, in percentile

Grade	Yes	No
7th	35.6	64.4
8th	34.7	65.3
9th	25.8	74.2
Total	**32.9**	**67.1**

Trusting the Physicians

The program had been conducted for several years before the surveying. The last two questions asked how many times the students had taken this program, or a similar one elsewhere, and if the students trusted the physicians presenting the material. The respondents for these questions were similar to the prior two questions, with only those having completed the training answering these questions. Despite the fluidity of the military population, the number of times participating in the program correlated with the grade levels (table 59). Concerning the students trusting the doctors as instructors, the responses were resoundingly positive, with positive females slightly more than males overall. The differences observed by grade level and gender were statistically significant (table 60).

Table 59. Number of Times in the Program by Grade Level, in percentile

Grade	None	First	Second	Third	Fourth	Fifth
7th	8.5	56.2	8.3	26.8	0.0	0.2
8th	4.5	24.8	54.5	16.2	0.0	0.0
9th	4.4	17.2	28.4	49.6	0.4	0.0
Total	**6.3**	**37.0**	**27.4**	**29.1**	**0.1**	**0.1**

Table 60. Trust of the Physicians by Grade Level and Gender, in percentile

Grade	Yes	No
7th	87.4	12.6
8th	92.8	7.2
9th	81.5	18.5
Female	89.4	10.6
Male	85.9	14.1
Total	**87.6**	**12.4**

CHAPTER 4

DISCUSSION

The purpose of this project, with all of the information that was asked and might be derived from the survey, was to obtain a baseline data description about the student population. From this, a preventive education based program at the Fort Bragg junior high school could be better designed. In reviewing the literature, no such data set had existed before, to describe a military dependent population at any location regarding the nature and prevalence of high-risk behaviors. One published study described this population as a whole entity. However, only 19% responded to this survey with a skew towards Air Force and overseas dependents. Further, it did not address areas regarding sexuality and pregnancy, and it involved a wider age range of students. While it provided a good place to start, the present study's focus of using junior high school age students was to identify when these behaviors begin in the first place, to provide a better starting point for prevention-based education.

In theory, this knowledge should help educators build a program. Little information exists outside of nationally derived data to describe the prevalence of high-risk behaviors in the different populations. What information had been known came from agencies reacting to the rise in the incidence and prevalence of high-risk behaviors. The various programs used, whether abstinence, safer teaching programs, or a combination of both, had involved mostly inner city, impoverished youths where pregnancy, drug use, crime, and other problems had been noted. One drawback to these programs was they reacted to perceived problems and not vice versa. Another problem for a majority of the

studies was that the students used were high school age, and not the younger, junior high school students where the activity began. The few studies that did focus on the younger age group highlighted the extent of activity in the population studied, whether it involved smoking, drug use, teen sexuality, or teen pregnancy. The program that began at Fort Bragg came from anecdotal observation and evidence of such teen activity.

The database collected from the three surveys, when pooled together provided a large body of evidence, with a wealth of information obtained within it. From the student population overall, 82.1% responded to the survey, with better yields during the second and third surveys. The database was weighted towards the younger grades, with a higher number of students making up the student body. Thus, the cumulative rates were weighted somewhat towards lower age groups. Completion rate for each survey was quite high, with the respondents providing over 95% of the possible answers from all of the surveys combined. The percentage of erroneous responses (3.2%) and lack of correlation between the answers (3.1%) were small. Anonymity was stressed to gather honest information and responses from the students, and without fear of exposure, there was little doubt that the answers by the students were honest and forthright.

Overall, the data showed the increase of activity of high-risk adolescent behaviors with age and grade level. In itself, this was not surprising. The recent radio commercial by the Partnership for a Drug Free America and the National Drug Control Council highlighted that--ask a 6th grader versus a 7th grader what a clip is, and the answers were something to hold paper and something to hold a joint, respectively. What was more surprising, though, was the prevalence of some of the various activities reported, with the frequency and early age that the students reported such involvement. Differences in

some of the activities concerning gender, ethnicity, home structure, and parents' status as teen parents were evident. The responses provided by the students about their attitudes and feelings provided additional insight not appreciated before in the youth population. Further, the responses about the value of the current program also provided comments directed towards future planning and design.

With cigarette use, the responses paralleled those found in the Military Family Institute study, but the percentages were lower in this study. Approximately 18.5% of 7th graders reported a greater level of usage than just experimentation (once or twice use), with an increase to approximately 35% for the 9th graders. Academic performance was slightly lower for the tobacco-using group. More than a quarter of the group was active in its usage overall, with already 4.0% reporting daily use. No gender differences were evident. Ethnic differences were small for tobacco use, with less than half having never tried it. With more than experimentation use, usage rates for Whites were slightly less than 30% while for Blacks they were less than 20%.

With smokeless tobacco, approximately 1.8% of 7th graders did more than just experiment. This increased to almost 7% for the 9th graders. Less than one percent of Blacks used it while 4.5% of Whites used it. The student body's rates were similar to the national data reported in the U.S. Preventive Services Task Force. Males were the predominant users, as was seen in the civilian studies. Smokeless tobacco was the least used substance, with less than 4% active in its use.

With substance use, the students reported the highest levels with alcohol, with no difference by gender. Over 20% of the 7th graders had reported use more than just experimentation. This figure rose to more than one-third of the 8th graders, and was

almost half of the 9th graders. The level of use was higher in the smaller minority groups of Hispanic, Oriental, Middle Eastern, and multi-ethnic backgrounds than among Whites or Blacks. With illegal drugs, the level of usage was lower overall at approximately 10%, with males showing greater use. While only 5% of 7th graders reported illegal drug use, these levels rose to 8% for 8th graders and almost 20% for 9th graders. Like alcohol, usage was greater among the smaller minorities than among Blacks or Whites.

Almost one-third of the students had reported sexual experience. Unlike experimenting with substances, sexual activity would be too complex to call a one or two time user an experimenter. Thus, more than 20% of the 7th graders already had sex, and slightly over 10% were more experienced than just once or twice. For the eighth graders, more than one-third had sex, and more than 20% were more experienced than just once or twice. For the ninth graders, almost 45% lost their virginity, and over 25% were more experienced than just once or twice. Males were more active than the females, and the minorities, save the Oriental group, were more active the Whites. Almost one-half of the sexually active group were Black and another quarter were White. Along with activity levels, the number of sexual partners rose with age and grade level. More than 10% of all of the ninth graders as well as more than 10% of all of the males had had more than three sexual partners already. STDs were quite low among the active group, with a rate of over 4% in the ninth graders. The incidence of STDs increased with the number of sexual partners and with a lack of contraception. Condoms were the most used contraception by far at over 80%, but approximately 7.5% still used nothing, despite continuing activity.

Pregnancy, births, and abortions were low among the student body, and lower than the national statistics for all teen women. The females showed higher prevalence of pregnancy in the seventh and ninth grade than among the eighth grade. Births resulted from half of the pregnancies in the teen females with the majority coming from the younger age females. The other half of pregnancies in the teen females ended in abortions, with both younger and older teens higher. This might suggest that the pregnancies in the 7th graders were carried to term because of the greater need to involve the parents. The survey, however, did not ask this question. Males showed an increase in causing pregnancies, births, and abortions with age and grade level, but the 9th graders accounted for more than half of the total of pregnancies, births, and abortions. The majority of these occurred in Blacks, Whites, Hispanic, and multi-ethnic groups, and a large majority came from homes with both parents.

The students reported substantial parental involvement in discussing issues of substance use and sex. This rate fell to slightly over half when the issue involved STDs and to two-thirds with males and pregnancy. These data countered the belief that such discussions were not happening in the home. They were, according to the students who reported it. More importantly, in spite of the level of parental discussion, the students did not feel as comfortable approaching their parent with issues of sex, as noted by the drop to slightly over half. This comfort level was considerably lower than the reported comfort level with substance use. Also intriguing was the discomfort in discussing these issues with school advisor, teachers, and the school nurse. These people were expected to be more accepted for discussion of these topics, but the students less accepted them than parents. Regarding physicians, students' responses were similar to those seen in

civilian studies; approximately 50% of the students were comfortable with them. What the students' responses showed might be what had been described in some of the civilian literature outlined earlier. Specifically, while being physically mature, were these students emotionally mature enough to responsibly make decisions?

With peer comparisons, slightly over half felt they had similar knowledge when compared to their friends. This figure was lower when asked about comparing their experience level to their friends. Those who were inexperienced considered themselves at the same or lower level of experience. Those who were experienced considered themselves to be at the same or greater level of experience, but compared to similar females, males viewed their experience level slightly lower than their comparable activity level. This area also seemed to highlight the differences between physical and emotional maturity, with the only discrepancy found in the data being in illegal drug use and sexually inexperienced males.

Motivation for engaging in a particular activity showed intriguing results. These reasons rose significantly with grade level and age, but no one reason stood alone from the rest. Those experienced in the use of a particular substance affirmed various introspective reasons offered--curiosity, liking the results, being old enough, and believing it was fun. For the inexperienced group, these answers were largely negative. With sex, approximately half of the active group provided affirmative answers for the introspective reasons, such as being old enough, curious, liking the results, and believing it was fun. External factors, such as peer influences, outside of the ninth graders' response to the boyfriend-girlfriend relationship, were not given as reasons. This indicated peer pressure was not the factor attributed by some of the literature. Overall,

the students highlighted awareness of the risks and consequences of engaging in the high-risk behaviors, but there was a slight dismissal in these responses among the more active in a particular activity. Thus, the students overall showed a higher cognitive knowledge level of the risks and consequences, but this did not translate fully into their actions, as was also found in the literature. Again, this seemed to highlight the differences between physical and intellectual maturity, and the emotional ability to seek help with these difficult issues.

The student body should have reflected a population distribution of the military rather than the country. The United States 1990 census showed the country was 75.7% non-Hispanic White, 12.3% Black, 9.0% Hispanic, 3.0% Asian and Pacific Islander, and 0.8% American Indian, Eskimo, and Aleut.[1] The student body was 38.9% non-Hispanic White, 31.1% Black, 12.1% Hispanic, 2.6% Asian, 1.7% Native American, and 12.7% other (multiple and Middle Eastern ethnic groups). The census report showed that 65% of all Black families with children had single parent homes compared with 25% for White families.[2] The military youth reported much higher percentages that living with both of their parents, regardless of ethnicity for the four largest groups. Another quarter lived in stepfamily arrangements, with a small number in single parent arrangements or living in other arrangements.

How living arrangements affected the students was evident. Smoking and smokeless tobacco usage occurred more frequently in single-parent homes. Alcohol usage was lowest in homes with both parents, and highest in the homes without any parent present and households without the natural mother. Drug use seemed to parallel these findings. Overall, sexual activity was the lowest in homes with both parents, and

notably higher in all other arrangements, but pregnancy occurrence was the opposite. Pregnancies, births, and abortions occurred most frequently in homes having both parents and the mother-stepfather arrangement. Thus, it seemed that for substance use the lowest rates occurred where both parents resided. For those that were sexually active, however, the consequences of activity were more evident in the homes having both parents as well as those having the mother with a stepfather. This study did not address the level of detail to explain these findings.

Teenage parental status of the parents was noted in the literature as a factor in teen sexual behaviors. The students reported that almost one-third of their parents were teenage parents themselves. This percentage was higher in the minority groups, except the Oriental group, and fell to one-fourth in the White population. Despite the reported rate of eighty- percent relationships involving teen pregnancy failing, almost half of these parents married, creating homes with both parents. How this affected the students' behaviors might have been less appreciated than in the civilian sector because within the military structure, two-parent homes were predominant as compared with the civilian population. There was no significant difference with teenage parental status of the parents in regards to pregnancy, births, and abortions in the males. It did appear, however, to have an association with the teen females.

In reviewing some of the effects of the educational program, these results were interesting. Despite the program, having the word "abstinence" in its name, slightly over half of the 7th graders to two-thirds of the 9th graders recognized abstinence as the best way to prevent pregnancy. Concerning the best way to prevent STDs, these numbers were lower with the 7th graders but higher with the 8th and 9th graders. Condoms and

the withdrawal method received equal response rates, especially from the younger grades. Either roughly half of the students did not understand or accept the concept that abstinence was the best method, or it might not have been the most practical, realistic choice for them individually, which is why they responded differently.

This might explain why the students overwhelmingly felt that the program had no effect on their behaviors. Two-thirds indicated no effect. It might also show that the feelings and behaviors that were already established at home or elsewhere, and the program did not change or dissuade behaviors. The goal of the program was an abstinence-based education to reduce high-risk behaviors. In theory, those who were already abstinent might not necessarily have received an effect from the program: they were already abstinent. Those who were active already might stay active. However, the level of impact was translated evenly across all the different levels of activity and behaviors, so what was the reason for no impact? Perhaps, the one-third who did indicate an effect on their behaviors might represent those who were unsure with their level of experimentation or lack thereof, and the program helped that particular group with the intellectual and emotional issues. More work would be needed here.

Countering the notion that the program had little value, however, was the overwhelming trust given the physicians who presented the material. This was widespread throughout the grades and genders. Within the military, medical care had been generally accessible to all active dependents. With the exception of sick-care visits, the only time teens came for routine or wellness care was for annual sports and school physicals. These visits are usually done in mass population setting, with little time available or privacy to allow discussing any of these issues. With the program came the

unique chance for teens to interact with a physician in a small group or one-on-one setting, and this improved the dialogue and rapport. In the long term, the program might help improve trust with the medical staff and improve their access to and level of care. This should allow the medical community to reduce the incidence and prevalence of high-risk behaviors, or at least work to mitigate their consequences and effect on the students. Thus, while the students might not have received tremendous value or experienced behavior change from the program itself, they might now have a resource to turn to in a more private, one-on-one fashion for help. This would become especially valuable in view of the apparent lower level of trust within the school staff.

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[1] Bureau of the Census, Current Population Reports, Series P23-189, *Population Profile of the United States: 1995* (Washington, D.C.: U.S. Government Printing Office, 1995), 9.

[2] Ibid., 23.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This study revealed that the student body in the junior high school at Fort Bragg was already participating actively in various high-risk behaviors. Whether the behavior in question was tobacco use, alcohol use, illegal drug use, or sex, the exposure and extent to which even seventh graders participate would warrant a closer look, to minimize the incidence, but also mitigate the risks and consequences of such activity. Working towards improving overall health and well-being might be perceived as condoning participation in these behaviors, but in reality, it would represent an acknowledgement that these activities are present in today's society, are not going away easily any time soon, and may be a significant risk to their future.

An abstinence-only approach towards providing these students education and knowledge would not be an effective approach. It would not address the issues and concerns of a large number of students. They had already been active in one or more of the high-risk behaviors; by ignoring them, they would become disenfranchised, feel lectured to regarding their behavior, and dismiss all of the knowledge that might be gained through teaching and dialogue. The abstinence-only approach discounted and minimized the areas involving making these behaviors safer than what they were at present, and thus students active in a particular high-risk behavior would be at increased risk of the consequences, as shown in the civilian literature. The pure abstinence only approach to a large population had been demonstrated already in the literature to be

ineffective over the long term; thus, such an investment would simply repeat and reinforce history.

To not discuss the merits of abstinence would be to miss the majority of students not active yet with high-risk behaviors and would be a mistake. The literature has shown the value of safer sex and behavior programs within high-risk groups in reducing the consequences of such behaviors. The focus should be on more than just minimizing the consequences in the active group. Safer sex and behavior programs had been noted in the literature as being a vehicle of encouragement of behavior in the uninitiated, and the majority of these students were still inexperienced within each behavior. The goal of prevention and education programs should be to try to slow as much as possible the transition of teenagers from abstinent to active. With the complexities of military life, most military parents would rather have it that way.

Combining the two modalities, as had been done in some of the programs discussed in the literature, would have a better overall effect in theory, by addressing both sides of the behavior. The combination approach should educate and reinforce reasons to not engage in the first place for those students, but also blend in a preventive message for those already active. With the increase of activity and experience as seen from the seventh grade to the ninth grade and on into high school, it would be hard to blame any program alone, and not environment, natural progression, and society at-large. This approach might also have the benefit to sway a small proportion of students to reconsider the extent of their participation in certain behaviors. For those not interested in overt reduction or cessation, it should enlighten them about the risks and consequences, but also elevate their intellectual maturity level to begin to discuss with appropriate people

ways to engage more intelligently and safely. An offshoot of this approach might provide those students the foundation to discuss problems better and concerns sooner with medical professionals and their parents. In short, it should prepare these young adolescents better for the harder choices later as they grow and become more independent.

In reviewing the data and the program, more work would be needed to design a program better to meet the total needs of this age group. It was apparent that starting in high school is too late. Where to begin this teaching might still be an open question, but starting in elementary school might be too young for the level of maturity needed to address these complex issues. The students reported that the program did not have an effect on their behaviors, but the survey did not determine why. This came as a surprise, considering how well received the current program was, but part of the favorable reception might have been due to the influence of outside physicians in presenting the information, and the level of trust attributed to them.

The variables that were significant for the students at Fort Bragg might also require further analysis. Having both parents at home seemed beneficial towards reducing the prevalence of alcohol, drugs, and tobacco use. With sex, although this factor appeared beneficial in reducing sexual behavior, adverse consequences occurred more frequently in these homes. Ethnicity had a role in extent of behavior, but more study would be needed to delineate what other underlying factors might make one group different from others. Some factors were not studied to keep the survey simple, but also to provide anonymity. Other variables would include family income, the rank of the servicemember, and the type of unit of the servicemember might be significant. Other

factors to consider would include religious practices, the number of parents who worked outside the home, the number of children and relatives living at home, how much time the parents were at home versus away at work, and the extent to which the student was involved in outside curricular activities. Further, how the structure of the military as an institution influenced the rearing of children might highlight differences that would be beneficial in demonstrating its strengths. Readily seen were such facets as a higher percentage of two parent families, a higher percentage of natural families, and a higher percentage of successful teen parent relationships than in the civilian community.

How the military youth compared to the civilian counterparts was not studied in this survey. No control group or comparison data were obtained; these might prove itself intriguing. In some respects, these students were similar in their levels of activity with the high-risk behaviors, but more work would be needed to better clarify the similarities and differences. Of interest might be comparing the military youth that went to school on post as compared to the students living and attending school off-post. Other socioeconomic variables might be equal, with both groups sharing similar employment, medical benefits, and military lifestyles. How deployment or long-term absence of the active duty servicemember might affect the student and family would warrant further study, as this would turn a dual-parent family into a single-parent home.

This survey did provide information valuable for future programs and consideration. First, it highlighted the need to continue the efforts for primary and secondary prevention. Second, it revealed that parents were addressing these issues with their children, and students learned the material cognitively. Third, it demonstrated to many parents, adults, administrators, physicians, and community leaders the need to

consider these factors of adolescent life and to focus attention on helping youth who appear to be approaching trouble by intervening before something happens. While the data might not be transferable to other military posts, these communities should take note of the current findings and begin the process of identifying the prevalence of these behaviors to work towards reducing them and minimizing their effect on the population at large.

Levels of activity at other posts in other parts of the country and overseas might be surprising. While these problems were believed to occur in lower socioeconomic areas and uneducated populations, the literature showed that substance abuse and other behaviors occurred in highly educated families--these populations just had not been studied enough. Once obtaining the baseline data, designing a longitudinal, comprehensive program that would begin before these students enter junior high school should follow. Perhaps, a program beginning in 5th or 6th grade and weighted more towards abstinence would be a place to start. Here, having the parents present with the students should help open better dialogue with their children. In the junior high school years, continuing a program that would be comprehensive, but weighted initially towards the abstinence, with an age-appropriate increase in the secondary prevention might be most beneficial. Having the parents aware and available at home, but not present, might serve the students well to facilitate discussion and improve comfort. Continuing such a program into high school should continue to benefit them. Through such an approach, solving or reducing these problems might be a process with a great reward at the end, saving our future youth from the effects and consequences of high-risk behaviors.

APPENDIX A

ALBRITTON JUNIOR HIGH SCHOOL

HEALTH SURVEY—1995
Abstinence Curriculum Assessment

IMPORTANT!!!

1. Do **NOT** put your name anywhere on this survey.

2. All answers are CONFIDENTIAL and ANONYMOUS.

3. Answer all questions as they are written to the best of your ability. Please do not leave any blank or unanswered.

4. Please do not ask for or receive any help on the survey. Do not ask your neighbor or teacher.

5. All questions are straightforward. There are no "tricks" or "hidden meanings." You are asked to select the best answer from the choices provided.

6. This survey should take about 10-15 minutes.

ALBRITTON JUNIOR HIGH HEALTH SURVEY—1995
Abstinence Curriculum Assessment

INSTRUCTIONS: **Circle <u>one</u> answer for each question, except where stated.**

1. **How old are you?**
   a. 11
   b. 12
   c. 13
   d. 14
   e. 15
   f. other (_____)

2. **In what grade are you?**
   a. 7 th
   b. 8 th
   c. 9 th

3. **What is your sex?**
   a. Male
   b. Female

4. **What grades do you usually make?**
   a. A's
   b. B's
   c. C's
   d. D's
   e. F's

5. **What is your racial background?**
   a. Caucasian or White, Non-Hispanic
   b. Hispanic or Latin American
   c. Black or African-American
   d. Oriental, Far Eastern, or Asian
   e. Native American
   f. Middle Eastern, Arabic, or Israeli
   g. More than one (please specify--_____)

6. **Who do you live with at home?**
   a. Both my natural parent
   b. My mother only
   c. My father only
   d. My mother and stepfather
   e. My father and stepmother
   f. My mother and a companion
   g. My father and a companion
   h. Other (please specify-_____)

7. **What do you plan for the future regarding a career? (circle all that apply)**
   a. Graduate from high school
   b. Go to junior college/college/university/graduate or professional school
   c. Skip college and start full-time work immediately
   d. Enter the military (Enlisted, ROTC, Officer, Reserves, National Guard)

8. **What do you plan for the future regarding a family? (circle all that apply)**
   a. Get married before 20 years of age
   b. Start a family (have children) before 20 years of age
   c. Get married between 20 and 30 years of age
   d. Start a family between 20 and 30 years of age
   e. Get married after 30 years of age
   f. Start a family after 30 years of age
   g. Never marry
   h. Never plan on having a family

9. **Was either of your parents a teenage parent?**
   a. Yes -----> If yes, which? (Mother) (Father)
   b. No
   c. I don't know

10. **Circle all the classes in the program that you attended this year.**
   A. Tobacco, Alcohol, Drugs
   B. Teen Sex
   C. Teen Pregnancy
   D. Healthy Lifestyle
   E. Question/Answer/Open Topic Day

11. **How often have you smoked cigarettes?**
   A. Never tried it
   B. Tried it once or twice
   C. Tried it more than twice, but not with any regularity
   D. Smoke at least once monthly
   E. Smoke at least once weekly
   F. Smoke daily

12. **How often have you used dip, snuff, or chewing tobacco?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Do it at least once monthly
    E. Do it at least once weekly
    F. Do it daily

13. **How often have you used alcoholic beverages?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Drink at least once monthly
    E. Drink at least once weekly
    F. Drink daily

14. **How often have you used illegal or illicit drugs?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Use at least once monthly
    E. Use at least once weekly
    F. Use daily

15. **How often have you had sexual intercourse?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Do it least once monthly
    E. Do it least once weekly
    F. Do it more than once in a week

16. **With how many different people have you had sexual intercourse?**
    A. None
    B. One
    C. Two
    D. Three
    E. More than Three

17. How many times have you had a sexually transmitted disease (STD)?

A. None
B. One
C. Two
D. Three
E. More than Three

18. What are you using for birth control/STD protection? (circle all that apply)

A. Does not apply (I am not sexually active)
B. Condoms
C. Sponge/spermicide
D. Birth control pill ("the pill")
E. Depo-Provera ("the shot")
F. I'm not using anything (I am sexually active)

–The next three questions are gender-specific (men answer the men's questions; women answer the women's questions)

For <u>women</u> only—answer the next three questions and then go to # 22.

19f. How many times have you been pregnant?

A. None
B. One
C. Two
D. Three
E. More than Three

20f. How many times have you given birth to a baby?

A. None
B. One
C. Two
D. Three
E. More than Three

21f. How many times have you had an abortion?

A. None
B. One
C. Two
D. Three
E. More than Three **(go to question #22)**

For men only—answer the next three questions and then continue.

19m. How many times have you gotten a woman pregnant?

A. None
B. One
C. Two
D. Three
E. More than Three

20m. How many times have you fathered a baby?

A. None
B. One
C. Two
D. Three
E. More than Three

21m. How many times has a pregnancy that you were a part of been aborted?

A. None
B. One
C. Two
D. Three
E. More than Three

Instructions: Answer each Yes/No choice in the next 3 sets of questions.

--At least one of my parents/guardians has discussed with me the topic of--

22.	**Alcohol**	Yes	No
23.	**Tobacco**	Yes	No
24.	**Drugs**	Yes	No
25.	**Sex**	Yes	No
26.	**Getting a STD**	Yes	No
27.	**--For men, getting a woman pregnant** }		
	--For women, becoming pregnant }	Yes	No

--I feel comfortable discussing with at least one of my parents/guardians--

28.	**Alcohol**	Yes	No
29.	**Tobacco**	Yes	No
30.	**Drugs**	Yes	No
31.	**Sex**	Yes	No
32.	**Getting a STD**	Yes	No
33.	**--For men, getting a woman pregnant** }		
	--For women, becoming pregnant }	Yes	No

--Do you feel comfortable talking about any of these 6 topics above with--

34.	**Your advisor or teachers?**	Yes	No
35.	**The school nurse?**	Yes	No
36.	**Your doctor?**	Yes	No

<u>Instructions:</u> The next 6 questions ask you to compare yourself to your close friends and peer group. The first three asks about what you do or have done. The second three asks about what you know.

NOTE: Even if you do not do the mentioned topic, remember you are only comparing yourself to your friends. Answer each the best you can.

37. Compared to my friends, in the area of sex, I have:
- A. More experience
- B. Less experience
- C. About the same experience

38. Compared to my friends, in the area of alcohol and drugs, I have:
- A. More experience
- B. Less experience
- C. About the same experience

39. Compared to my friends, in the area of tobacco/smoking, I have:
- A. More experience
- B. Less experience
- C. About the same experience

40. Compared to my friends, in the area of sex, I have:
- A. More knowledge
- B. Less knowledge
- C. About the same knowledge

41. Compared to my friends, in the area of alcohol and drugs, I have:
- A. More knowledge
- B. Less knowledge
- C. About the same knowledge

42. Compared to my friends, in the area of tobacco/smoking, I have:
- A. More knowledge
- B. Less knowledge
- C. About the same knowledge

Instructions: **Answer each of the following Yes/No choices.**

--Reasons I would do the following: (Answer each Yes/No choice)

	(The Reason)	--Use Drugs/Drink/Smoke?		--Have Sex?	
43-44.	**Because I am old enough**	Yes	No	Yes	No
45-46.	**Because I believe it is fun**	Yes	No	Yes	No
47-48.	**Because I am curious to find out**	Yes	No	Yes	No
49-50.	**Because everyone is doing it**	Yes	No	Yes	No
51-52.	**Because all my friends are doing it**	Yes	No	Yes	No
53-54.	**Because I like the results**	Yes	No	Yes	No
55-56.	**Because I want to fit in**	Yes	No	Yes	No
57-58.	**--Because my girlfriend wants me to}**				
	--Because my boyfriend wants me to}	Yes	No	Yes	No

--With regards to sex, I have thought about the possible consequences like--

59.	**Risk of infections**	Yes	No
60.	**Risk of pregnancy**	Yes	No
61.	**Effect on my self-esteem**	Yes	No
62.	**Effect on my reputation**	Yes	No

--With regards to drugs, alcohol, and tobacco use, I have thought about the possible consequences like--

63.	**Risk of addiction**	Yes	No
64.	**Risk of injury or death**	Yes	No
65.	**Effect on my health**	Yes	No
66.	**Effect on my reputation**	Yes	No

67. **What is the most effective way to prevent pregnancy? (select 1)**

A.	Withdrawal method	E.	Depo-Provera (the "shot")
B.	Diaphragm with spermicidal gel	F.	Condoms ("rubbers")
C.	Sponge with spermicidal gel	G.	Abstinence
D.	Birth Control Pill (the "pill")	H.	Other (Specify--_____)

68. **What is the most effective way to prevent STD's? (select 1)**

A.	Withdrawal method	E.	Depo-Provera (the "shot")
B.	Diaphragm with spermicidal gel	F.	Condoms ("rubbers")
C.	Sponge with spermicidal gel	G.	Abstinence
D.	Birth Control Pill (the "pill")	H.	Other (Specify--_____)

69. Since having these classes, which describes you best? (select 1)

A. I have never started having sex before these classes and will continue to abstain for at least another year.
B. I have never started having sex before these classes, but am considering to begin within the next year.
C. I have never started having sex before these classes, but have started since.
D. I have had sex before these classes, and I will continue to do so.
E. I have had sex before these classes, but I am considering stopping it.
F. I have had sex before these classes, but I have decided to abstain.

70. The Abstinence Curriculum course has had an impact on my behaviors.

A. True (If so, which ones?_____)
B. False

71. How many times have you had the Abstinence Curriculum Course here?

a. 1 st
b. 2 nd
c. 3 rd
d. I never had these classes

72. I trust the doctors teaching these classes.

A. True
B. False

Your teaching doctor(s) was _____.

Again, thank you for your help. To reiterate, your answers are completely confidential and anonymous. Please write any questions, problems, or comments about this survey on the back of this form. Also, please give any suggestions on improving the curriculum for next year.

--Dr. B.

APPENDIX B

ALBRITTON JUNIOR HIGH SCHOOL

HEALTH SURVEY—1995-6
Abstinence Curriculum Assessment

IMPORTANT!!!

1. Do **NOT** put your name anywhere on this survey.

2. All answers are CONFIDENTIAL and ANONYMOUS.

3. Answer all questions as they are written to the best of your ability. Please do not leave any blank or unanswered.

4. Please do not ask for or receive any help on the survey. Do not ask your neighbor or teacher.

5. All questions are straightforward. There are no "tricks" or "hidden meanings." You are asked to select the best answer from the choices provided.

6. This survey should take about 10-15 minutes.

ALBRITTON JUNIOR HIGH HEALTH SURVEY—1995-1996
Abstinence Curriculum Assessment

INSTRUCTIONS: **Circle <u>one</u> answer for each question, except where stated or where asked to write in the information (e.g. other, please specify, etc. . .).**

1. **How old are you?**
   a. 11
   b. 12
   c. 13
   d. 14
   e. 15
   f. other (_____)

2. **In what grade are you?**
   a. 7 th
   b. 8 th
   c. 9 th

3. **What is your sex?**
   a. Male
   b. Female

4. **On average, what grades do you usually make? (circle just one answer)**
   a. A's
   b. B's
   c. C's
   d. D's
   e. F's

5. **What is your racial background? (circle just one answer)**
   a. Caucasian or White, Non-Hispanic
   b. Hispanic or Latin American
   c. Black or African-American
   d. Oriental, Far Eastern, or Asian
   e. Native American
   f. Middle Eastern, Arabic, or Israeli
   g. More than one (please specify--_____)

6. **Who do you live with at home? (circle just one answer)**
   a. Both my natural parent
   b. My mother only
   c. My father only
   d. My mother and stepfather
   e. My father and stepmother
   f. My mother and a companion
   g. My father and a companion
   h. Other (please specify-_____)

7. **What do you plan for the future regarding a career? (circle <u>all</u> that apply)**
   a. Graduate from high school
   b. Go to junior college/college/university/graduate or professional school
   c. Skip college and start full-time work immediately
   d. Enter the military (Enlisted, ROTC, Officer, Reserves, National Guard)

8. **What do you plan for the future regarding a family? (circle <u>all</u> that apply)**
   a. Get married before 20 years of age
   b. Start a family (have children) before 20 years of age
   c. Get married between 20 and 30 years of age
   d. Start a family between 20 and 30 years of age
   e. Get married after 30 years of age
   f. Start a family after 30 years of age
   g. Never marry
   h. Never plan on having a family

9. **Was either of your parents a teenage parent (less than 20 years old)?**
   a. Yes -----> If yes, which? <u>(Mother)</u> <u>(Father)</u>
   b. No
   c. I don't know

10. **Circle all the classes in the program that you attended this year.**
   A. Tobacco, Alcohol, Drugs
   B. Teen Sex
   C. Teen Pregnancy
   D. Healthy Lifestyle
   E. Question/Answer/Open Topic Day

11. **How often have you smoked cigarettes? (circle just one answer)**
   A. Never tried it
   B. Tried it once or twice
   C. Tried it more than twice, but not with any regularity
   D. Smoke at least once monthly
   E. Smoke at least once weekly
   F. Smoke daily

12. **How often have you used dip, snuff, or chewing tobacco?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Do it at least once monthly
    E. Do it at least once weekly
    F. Do it daily

13. **How often have you used alcoholic beverages?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Drink at least once monthly
    E. Drink at least once weekly
    F. Drink daily

14. **How often have you used illegal or illicit drugs (including marijuana)?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Use at least once monthly
    E. Use at least once weekly
    F. Use daily

15. **How often have you had sexual intercourse?**
    A. Never tried it
    B. Tried it once or twice
    C. Tried it more than twice, but not with any regularity
    D. Do it least once monthly
    E. Do it least once weekly
    F. Do it more than once in a week

16. **With how many different people have you had sexual intercourse?**
    A. None
    B. One
    C. Two
    D. Three
    E. More than Three

17. **How many times have you had a sexually transmitted disease (STD)?**
   A. None
   B. One
   C. Two
   D. Three
   E. More than Three

18. **What are you using for birth control/STD protection? (circle all that apply)**
   A. Does not apply (I am not sexually active)
   B. Condoms
   C. Sponge/spermicide
   D. Birth control pill ("the pill")
   E. Depo-Provera ("the shot")
   F. I'm not using anything (I am sexually active)

INSTRUCTIONS: The next three are gender specific--

19. If you are a woman, **answer how many times have you been pregnant--**
   If you are a man, **answer how many times have you gotten a woman pregnant**

   A. None
   B. One
   C. Two
   D. Three
   E. More than Three

20. If you are a woman, **answer how many times have you given birth to a baby--**
   If you are a man, **answer how many times have you fathered a baby**

   A. None
   B. One
   C. Two
   D. Three
   E. More than Three

21. If you are a woman, **answer how many times have you had an abortion--**
   If you are a man, **answer how many times has a pregnancy that you were a part of been aborted--**

   A. None
   B. One
   C. Two
   D. Three
   E. More than Three

Instructions: **Answer each Yes/No choice in the next 3 sets of questions.**

--At least one of my parents/guardians has discussed with me the topic of--

22.	**Alcohol**	Yes	No
23.	**Tobacco**	Yes	No
24.	**Drugs**	Yes	No
25.	**Sex**	Yes	No
26.	**Getting a STD**	Yes	No
27.	**--For men, getting a woman pregnant** }		
	--For women, becoming pregnant }	Yes	No

--I feel comfortable discussing with at least one of my parents/guardians--

28.	**Alcohol**	Yes	No
29.	**Tobacco**	Yes	No
30.	**Drugs**	Yes	No
31.	**Sex**	Yes	No
32.	**Getting a STD**	Yes	No
33.	**--For men, getting a woman pregnant** }		
	--For women, becoming pregnant }	Yes	No

--Do you feel comfortable talking about any of these 6 topics above with--

34.	**Your advisor or teachers?**	Yes	No
35.	**The school nurse?**	Yes	No
36.	**Your doctor?**	Yes	No

Instructions: **The next 6 questions ask you to compare yourself to your close friends and peer group. The first three asks about what you do or have done. The second three asks about what you know.**

NOTE: Even if you do not do the mentioned topic, remember you are only comparing yourself to your friends. Answer each the best you can.

37. Compared to my friends, in the area of sex, I have:

A. More experience
B. Less experience
C. About the same experience

38. Compared to my friends, in the area of alcohol and drugs, I have:

A. More experience
B. Less experience
C. About the same experience

39. **Compared to my friends, in the area of tobacco/smoking, I have:**
   A. More experience
   B. Less experience
   C. About the same experience

40. **Compared to my friends, in the area of sex, I have:**
   A. More knowledge
   B. Less knowledge
   C. About the same knowledge

41. **Compared to my friends, in the area of alcohol and drugs, I have:**
   A. More knowledge
   B. Less knowledge
   C. About the same knowledge

42. **Compared to my friends, in the area of tobacco/smoking, I have:**
   A. More knowledge
   B. Less knowledge
   C. About the same knowledge

Instructions: **Answer each of the following Yes/No choices.**

--A reason I would use drugs, drink, smoke, or have sex is. . .

	(The Reason)	--Use Drugs/Drink/Smoke?		--Have Sex?	
43-44.	**Because I am old enough**	Yes	No	Yes	No
45-46.	**Because I believe it is fun**	Yes	No	Yes	No
47-48.	**Because I am curious to find out**	Yes	No	Yes	No
49-50.	**Because everyone is doing it**	Yes	No	Yes	No
51-52.	**Because all my friends are doing it**	Yes	No	Yes	No
53-54.	**Because I like the results**	Yes	No	Yes	No
55-56.	**Because I want to fit in**	Yes	No	Yes	No
57-58.	**--Because my girlfriend wants me to}**				
	--Because my boyfriend wants me to}	Yes	No	Yes	No

--Regarding sex, I have thought about the possible consequences like--

59.	**Risk of infections**	Yes	No
60.	**Risk of pregnancy**	Yes	No
61.	**Effect on my self-esteem**	Yes	No
62.	**Effect on my reputation**	Yes	No

--With regards to drugs, alcohol, and tobacco use, I have thought about the possible consequences like--

63.	**Risk of addiction**	Yes	No
64.	**Risk of injury or death**	Yes	No
65.	**Effect on my health**	Yes	No
66.	**Effect on my reputation**	Yes	No

67. What is the most effective way to prevent pregnancy? (select 1)

A.	Withdrawal method	E.	Depo-Provera (the "shot")
B.	Diaphragm with spermicidal gel	F.	Condoms ("rubbers")
C.	Sponge with spermicidal gel	G.	Abstinence
D.	Birth Control Pill (the "pill")	H.	Other (Specify--_____)

68. What is the most effective way to prevent STD's? (select 1)

A.	Withdrawal method	E.	Depo-Provera (the "shot")
B.	Diaphragm with spermicidal gel	F.	Condoms ("rubbers")
C.	Sponge with spermicidal gel	G.	Abstinence
D.	Birth Control Pill (the "pill")	H.	Other (Specify--_____)

69. Since having these classes, which describes you best? (select 1)

A. I have never started having sex before these classes and will continue to abstain for at least another year.
B. I have never started having sex before these classes, but am considering to begin within the next year.
C. I have never started having sex before these classes, but have started since.
D. I have had sex before these classes, and I will continue to do so.
E. I have had sex before these classes, but I am considering stopping it.
F. I have had sex before these classes, but I have decided to abstain.

70. The Abstinence Curriculum course has had an impact on my behaviors.

A. True (If so, which ones?_____)
B. False

71. How many times have you had the Abstinence Curriculum Course here?

a. 1 st
b. 2 nd
c. 3 rd
d. I never had these classes

72. I trust the doctors teaching these classes.

A. True
B. False

Your teaching doctor(s) was _____.

--Each sentence below is either True (T) or False (F). Circle your answer.

Tobacco, Drugs, and Alcohol

73. **(T) (F)** The average age to start smoking in America is 13.
74. **(T) (F)** Nicotine is more addictive than heroin.
75. **(T) (F)** Alcohol is a stimulant, or upper.
76. **(T) (F)** Cocaine is the most widely abused drug in America.
77. **(T) (F)** Marijuana is a depressant, or downer.

Teen Sexual Activity

78. **(T) (F)** A majority of sexual active teens are NOT monogamous.
79. **(T) (F)** Condoms will definitively protect you from pregnancy and sexually transmitted diseases.
80. **(T) (F)** A woman on the "pill" does NOT need anything else to protect her from pregnancy or sexually transmitted diseases.
81. **(T) (F)** HIV is the most common sexually transmitted disease.
82. **(T) (F)** You can catch most sexually transmitted diseases from doorknobs, handshaking, and toilet seats.

Teen Pregnancy

83. **(T) (F)** Over 1 million teenage girls get pregnant each year..
84. **(T) (F)** 1 out of 10 teenaged girls will get pregnant each year.
85. **(T) (F)** More than half of teen fathers will have a criminal record.
86. **(T) (F)** Only 20% of teen mothers need welfare.
87. **(T) (F)** 50% of teen mothers do not finish high school.

Healthy Lifestyle

88. **(T) (F)** The number 1 killer for teens is death by accidents and trauma.
89. **(T) (F)** Peer pressure is a real problem.
90. **(T) (F)** HIV/AIDS is a fast growing problem for teens.
91. **(T) (F)** Abstinence is a personal choice.
92. **(T) (F)** Teens don't have to be responsible for their behavior and actions.

Last question--93. If this is not the first time completing this survey, were your answers more truthful or more honest than the last time you completed this?

A. Yes
B. No
C. Does not apply (this is the first time completing this survey)

Again, thank you for your help and your answers are completely secret --Dr. B.

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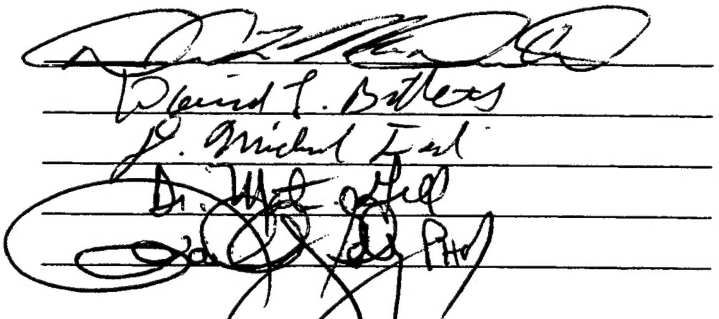

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